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# THE JOURNAL OF MEDICAL EDUCATION

APRIL 1954 • Vol. 29, No. 4

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## The Journal of MEDICAL EDUCATION



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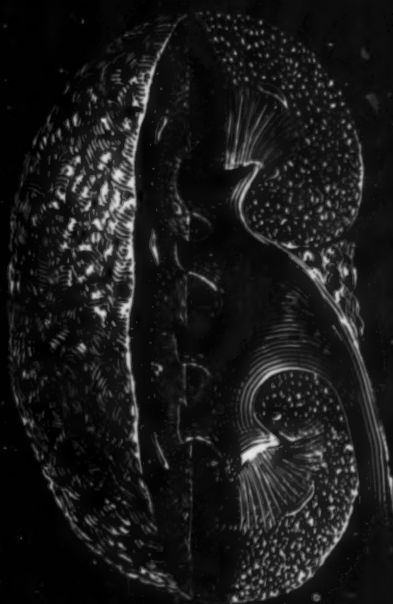
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1. Moyer, J. H.; Miller, S. I., and Ford, R. V.: J.A.M.A. 152:1121 (July 18) 1953.

2. Moyer, J. H.; Snyder, H. B.; Johnson, I.; Mills, L. C., and Miller, S. I.: Am. J. M. Sc. 225:379 (April) 1953.

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**American Academy of Neurology**—April 29-May 1; Shoreham Hotel; Washington, D. C.

**American Association of Anatomists**—April 7-9; Hotel Galvez; Galveston.

**American Association of Immunologists**—April 11-15; Ambassador Hotel; Atlantic City.

**American Association of Pathologists and Bacteriologists**—April 8-10; Philadelphia.

**American Association for the Study of Neoplastic Diseases**—April 29-30; Lord Baltimore Hotel; Baltimore.

**American Association of University Professors**—April 2-3; Buffalo, N.Y.

**American College of Physicians**—April 5-9; Chicago.

**American Dermatological Association**—April 13-17; The Greenbrier; White Sulphur Springs, W. Va.

**American Federation for Clinical Research**—May 2; Haddon Hall; Atlantic City.

**American Goiter Association**—April 29-30; Somerset Hotel; Boston.

**American Hospital Association**—September 20-23; Palmer House; Chicago.

**American Medical Association**—June 21-25; San Francisco.

**American Pediatric Society**—May 3-5; Buck Hill Falls, Pa.

**American Physiological Society**—April 10-16; Ambassador Hotel; Atlantic City.

**American Psychiatric Association**—May 3-7; St. Louis.

**American Society for Clinical Investigation**—May 3; Haddon Hall; Atlantic City.

**American Society for Experimental Pathology**—April 12-16; Atlantic City.

**American Society for Pharmacology and Experimental Therapeutics**—April 12-16; Atlantic City.

**Association of American Physicians**—May 4-5; Atlantic City, N. J.

**Fourth National Conference on College Health**—May 5-8; New York.

**International Academy of Proctology**—April 8-11; Chicago.

**International Cancer Congress**—July 23-29; Sao Paulo, Brazil.

**International Congress on Mental Health**—August 14-21; Toronto, Ont., Canada.

**International Congress of Ophthalmology**—September 10-11; Montreal, Canada.

**International Congress of Psychology**—June 7-12; Montreal, Canada.

**International Poliomyelitis Congress**—September 6-10; Rome, Italy.

**Medical Library Association**—June 15-18; Statler Hotel, Washington, D. C.

**National Tuberculosis Association**—May 17-21; Atlantic City, N. J.

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**World Congress of Cardiology**—September 12-17; Washington, D. C., and Bethesda, Md.

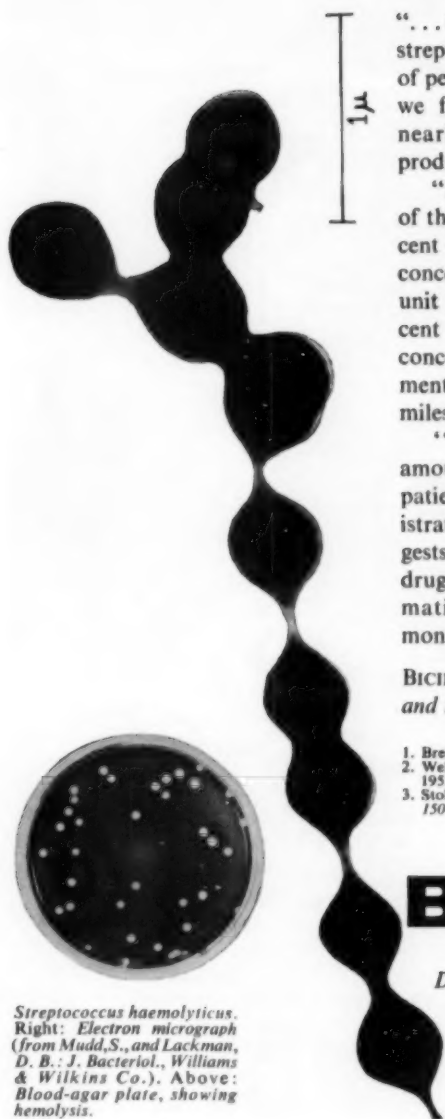
**World Medical Association**—September 26-October 2; Rome.

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*Streptococcus haemolyticus*.  
Right: Electron micrograph  
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# The Study of Applicants

For Admission to United States Medical Colleges,

Class Entering in 1953-1954

A four-year trend shows the number of students applying to medical schools is decreasing steadily. The current study indicates that even among schools having a large number of applicants, competition for the able students has increased.

## JOHN M. STALNAKER

FOR THE FOURTH consecutive year the number of students applying for admission to medical school has decreased. The freshman class of 1953-54 had some 2,085 fewer applicants than the class one year earlier and almost 10,000 fewer than the freshman class of 1949-50. Table 1 lists the figures for the past seven years.

In spite of the decrease in numbers, there are still more individuals seeking admission to medical school than the schools can accept. Their capacity is limited by the funds available to them and by their facilities and faculties. The average applicant, therefore, applies to more than one medical school. In fact, for the 1953-54 class, the average applicant submitted 3.3 applications. This average of 3.3 applications conceals significant variations. The residents of New York State, for example, apply to

more medical schools than do the residents of Colorado. The students who apply to Yale, to take another illustration, apply to more other medical schools than do the students who apply to the medical school at the University of Tennessee.

In the year under report there were 56,319 applications filed by the 14,678 individuals. The medical schools had almost 30,000 fewer applications to consider than they acted on in 1949-50.

While most of the applicants were applying for the first time, 23 per cent of them had applied a year earlier and were repeating their application.

TABLE 1

A Comparison of the Number of Applicants for the Past Seven Years

Freshman Year	Number of Applications	Number of Individuals	Applications per Individual
1947-48	56,279	18,829	3.0
1948-49	81,662	24,242	3.4
1949-50	88,244	24,434	3.6
1950-51	81,931	22,279	3.7
1951-52	70,678	19,920	3.5
1952-53	56,319	16,763	3.4
1953-54	48,586	14,678	3.3

Mr. Stalnakar is director of studies for the Association of American Medical Colleges.

# Study of Applicants

TABLE 2. Number of Completed Applications Acted Upon by Each Medical School

Medical School	Size of Freshman Class	Total Number of Applications Reported			Medical School	Size of Freshman Class	Total Number of Applications Reported		
		Men	Women	Total			Men	Women	Total
Alabama.....	80	170	9	179	Mississippi.....	56	117	3	120
Albany.....	50	728	33	761	Missouri.....	44	94	5	99
Arkansas.....	90	162	6	168	Nebraska.....	85	226	7	233
Baylor.....	90	475	27	502	New York Medical.....	129	1747	124	1871
Boston.....	72	946	53	999	New York University.....	130	1340	119	1459
Bowman Gray.....	54	585	31	616	North Carolina.....	60	220	18	238
Buffalo.....	70	556	31	587	North Dakota.....	40	67	3	70
California, L.A.....	50	321	28	349	Northwestern.....	128	1356	75	1431
California, S.F.....	76	349	32	381	Ohio.....	150	347	22	369
Chicago Medical.....	72	908	28	936	Oklahoma.....	100	133	12	165
Chicago, Univ. of.....	72	761	43	804	Oregon.....	75	251	14	265
Cincinnati.....	90	760	20	780	Pennsylvania.....	125	1455	89	1544
Colorado.....	80	152	10	162	Pittsburgh.....	100	432	23	455
Columbia.....	120	1143	125	1268	Rochester.....	70	875	39	914
Cornell.....	83	1283	133	1416	St. Louis.....	125	1035	36	1071
Creighton.....	76	725	20	745	South Carolina.....	80	131	6	137
Dartmouth.....	24	268	6	274	South Dakota.....	32	161	3	164
Duke.....	76	578	37	615	Southern California.....	69	446	31	477
Emory.....	72	432	15	447	Southwestern.....	100	254	20	274
Georgetown.....	124	897	45	942	Stanford.....	62	464	39	503
George Washington.....	100	913	53	966	State U. of N.Y. (N.Y.).....	150	1110	102	1212
Georgia.....	80	166	5	171	State U. of N.Y. (Syracuse).....	76	997	50	1047
Mahmaman.....	105	1097	60	1157	Temple.....	135	1660	101	1761
Harvard.....	114	1130	81	1211	Tennessee.....	200	289	14	303
Howard.....	75	396	32	428	Texas.....	162	355	26	381
Illinois.....	166	477	32	509	Tufts.....	110	474	25	499
Indiana.....	150	387	24	411	Tulane.....	130	1040	43	1083
Iowa.....	120	140	7	147	Utah.....	55	378	7	385
Jefferson.....	170	1709	2	1711	Vanderbilt.....	52	658	29	687
Johns Hopkins.....	75	335	45	380	Vermont.....	50	234	16	250
Kansas.....	108	191	10	201	Virginia, Univ. of.....	76	458	17	475
Louisiana.....	125	299	23	322	Virginia, Med. Col. of.....	84	300	15	315
Louisville.....	100	211	20	231	Washington, Univ. of.....	75	191	12	203
Loyola.....	88	659	29	688	Washington (St. Louis).....	86	1247	48	1295
Marquette.....	100	863	36	919	Wayne.....	100	265	21	286
Maryland.....	104	372	15	387	Western Reserve.....	80	945	50	995
Medical Evangelists.....	96	185	18	203	West Virginia.....	31	108	7	115
Meharry.....	65	417	29	446	Wisconsin.....	80	133	12	145
Miami.....	75	211	14	225	Women's Medical.....	50	3	206	209
Michigan.....	200	449	37	486	Yale.....	80	620	57	677
Minnesota.....	130	258	16	274	TOTAL.....	7489	45720	2866	48586

The comparable figure for the study of the preceding year was 31 per cent. Thus, not only are there fewer students applying, but fewer students are willing to continue to apply after having failed to gain an acceptance.

Of the total group of applicants, slightly over half (53 per cent) were accepted. Because the applicant population includes many who are not fitted by temperament, training or ability to survive the long and arduous education necessary to be-

come a physician, selection is essential. Of the group having also applied a year earlier, 40 per cent were accepted. This group contains many very able individuals who were advised to complete one additional year of undergraduate education, but it also contains some persistent but less qualified individuals. Of the group applying for the first time, 57 per cent were accepted.

These figures do not reveal the variation among schools. Some medi-



cal schools had a wealth of good applicants. The competition for these applicants was heavy, for such students usually apply to several schools, and all schools seek them. The medical schools which limit their applicants to the residents of the state in which the school is located in many instances had to scrape the bottom of the barrel to secure a freshman class.

The information on which this study of applicants is based has been compiled by the office of the director of studies of the Association from basic source data supplied by the medical schools. The accuracy and completeness of the statistics are dependent upon the accuracy and completeness of the records supplied by the medical schools. A card is prepared by each medical school for each of its applicants. This year 48,586 such reports were received. From these basic record cards the tables in this report have been prepared. A vote of thanks is due the staffs of the medical schools who prepare these original reports and do the inevitable checking. This study depends upon their cooperation. Their friendly and

understanding assistance makes the work less arduous.

Table 2 lists the number of applications received by each medical school. The size of the freshman class is also indicated. Comparisons among the schools can lead to false conclusions without more information about certain background conditions peculiar to each school. It is especially important to recognize that many of the applicants to any one school are also included as applicants to several other schools. Many of the applicants thus may not actually be available to a specific school if another medical school to which the applicant has also applied will accept him.

Consider an actual medical school which has over 1,000 applicants, but for the purpose of this illustration the figures are all reduced to an applicant group of exactly 1,000. These 1,000 applicants filed a total of 7,550 applications, or 6,550 applications to other medical schools. Each applicant filed an average of 7.5 applications. There were 955 acceptances given, including 100 from the first medical school. However, many of the acceptances were for the same group

TABLE 3. Applicants Classified by Number of Applications Made and Action Taken

Number of Applications Made	One or More Acceptances			No Acceptances			Total		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
1	2642	179	2821	2907	244	3151	5549	423	5972
2	1255	77	1332	987	84	1071	2242	161	2403
3	998	74	1072	635	52	687	1633	126	1759
4	664	40	704	481	33	514	1145	73	1218
5	502	32	534	324	16	340	826	48	874
6	338	22	360	247	16	263	585	38	623
7	219	21	240	177	10	187	396	31	427
8	151	13	164	160	10	170	311	23	334
9	119	6	125	93	6	99	212	12	224
10-14	262	14	276	282	16	298	544	30	574
15-19	78	0	78	88	5	93	166	5	171
20-24	28	2	30	35	0	35	63	2	65
25-29	14	0	14	8	0	8	22	0	22
30-34	4	0	4	3	0	3	7	0	7
35-45	2	0	2	3	0	3	5	0	5
TOTAL	7276	480	7756	6430	492	6922	13706	972	14678

# Study of Applicants

TABLE 4. Mean Score on the Medical College Admissions Test for Applicants Making Various Numbers of Applications

Number of Applications	Group Receiving One or More Acceptances				Group Not Accepted by Any School			
	Verbal	Quant.	Mod. Soc.	Science	Verbal	Quant.	Mod. Soc.	Science
1	503	517	511	516	455	454	465	453
2	516	525	522	529	452	449	468	453
3	527	533	525	537	459	456	467	456
4	529	530	528	541	468	455	474	467
5	538	530	537	546	467	461	478	473
6	529	529	534	540	465	463	488	474
7	533	535	538	546	469	459	482	471
8	533	530	539	543	481	469	494	473
9	534	517	535	536	468	469	478	473
10-14	541	537	550	545	490	474	505	480
15-19	539	523	545	550	482	481	493	479
20-24	539	534	564	539	527	515	548	519
25-29	531	499	556	547	514	511	535	523
30-34	533	495	535	458	502	458	478	462
35-45	455	490	450	555	472	458	453	472
TOTAL	519	525	524	530	461	457	472	460

of individuals. Thus it can be seen that it would be wrong to conclude that each school offering an acceptance would secure the applicant as a student. In the total applicants to each medical school are many individuals who will not accept a place at that medical school if another and preferred school will accept them. If a medical school seeking 100 fresh-

men has 1,000 applicants, it may well be quite incorrect to say that there are 10 applicants for each place, because many of these applicants will accept another medical school if given the opportunity.

Most of the state-controlled medical schools either limit their applicants to residents of the state or accept only a small number from out

TABLE 5. Applicants Who Also Applied Last Year Classified by Number of Applications Made and Action Taken

Number of Applications Made	One or More Acceptances			No Acceptances			Total		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
1	431	28	459	847	53	900	1278	81	1359
2	197	14	211	327	23	350	524	37	561
3	133	10	143	181	7	188	314	17	331
4	131	6	137	127	8	135	258	14	272
5	88	8	96	93	2	95	181	10	191
6	79	4	83	78	6	84	157	10	167
7	45	5	50	61	1	62	106	6	112
8	35	1	36	47	3	50	82	4	86
9	29	2	31	26	0	26	55	2	57
10-14	79	1	80	84	4	88	163	5	168
15-19	27	0	27	37	0	37	64	0	64
20-24	9	1	10	16	0	16	25	1	26
25-29	5	0	5	5	0	5	10	0	10
30-34	3	0	3	2	0	2	5	0	5
35-45	0	0	0	0	0	0	0	0	0
TOTAL	1291	80	1371	1931	107	2038	3222	187	3409

of state. As a result, as can be noted from Table 2, most state schools have fewer applicants than private schools. A study of the scores on the Medical College Admission Test—not reported here—shows that not only do they have fewer applicants, but lower scoring ones as well. Again this year some of the state schools are admitting students whose scores are in the lowest quarter (and in a few cases in the lowest 10 per cent) of the entire applicant group.

Of the 48,586 applications made

by the number of applications made. While again this year 41 per cent of the individuals applied to a single medical school, there were five hearty souls who each applied to over 35 schools and two of them gained an acceptance. A little over two-thirds of the applicants limit themselves to three applications or less. Yet 17 per cent apply to six or more schools and 844 individuals each apply to 10 or more. These 844 individuals account for over 12,000 applications.

Of the group applying to only one

TABLE 6. Mean Score on the Medical College Admission Test of Applicants Who Applied Last Year

Number of Applications Made	One or More Acceptances				No Acceptances			
	Verbal	Quant.	Mod. Soc.	Science	Verbal	Quant.	Mod. Soc.	Science
1	484	492	488	492	454	449	460	447
2	496	485	499	502	451	442	462	448
3	503	500	506	499	451	446	455	448
4	509	500	514	519	455	448	470	462
5	519	511	526	520	450	455	467	460
6	508	517	506	528	454	433	482	460
7	516	522	523	543	469	455	491	472
8	498	507	491	515	475	477	483	474
9	533	527	531	532	458	466	449	460
10-14	521	523	533	531	487	465	489	469
15-19	519	511	519	535	476	476	490	482
20-24	494	515	553	532	542	502	535	540
25-29	521	501	501	519	473	487	493	497
30-34	542	452	548	415	510	450	455	450
35-45	—	—	—	—	—	—	—	—
TOTAL	500	500	504	508	457	450	466	454

(which includes multiple applications made by the 14,678 individuals applying), 10,226 were accepted, or approximately 21 per cent (contrasted with 17 per cent for a year ago and 14 per cent two years ago). While some medical schools do not accept an individual who has been accepted by another school, there were 1,883 individuals who received two or more acceptances and six individuals were accepted by six different medical schools.

Table 3 classifies the applicants

medical school, 47 per cent gained an acceptance. However, 55 per cent of the group applying to two schools gained an acceptance, and of the group making three applications 61 per cent were accepted. Of the total group of applicants, 53 per cent were accepted.

Most of the applicants take the Medical College Admission Test. The test has four reported scores: verbal, quantitative, understanding modern society and science. Scores were available for 13,227 (90 per cent) of

## Study of Applicants

TABLE 7. Number of Individuals Accepted Classified by the Number of Medical Schools Offering Them an Acceptance

Number of Acceptances	Also Applied Last Year			Others			Total		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
1	1064	70	1134	4436	303	4739	5500	373	5873
2	174	5	179	1192	71	1263	1366	76	1442
3	37	3	40	270	19	289	307	22	329
4	12	1	13	65	6	71	77	7	84
5	3	1	4	17	1	18	20	2	22
6	1	0	1	5	0	5	6	0	6
TOTAL	1291	80	1371	5985	400	6385	7276	480	7756

the students reported in Table 3. Test results were available for 96 per cent of the students who received one or more acceptances and for 84 per cent of the students who receive no acceptances. When both groups are considered together, test results were available for 90 per cent. Mean or average scores were computed for certain entries in Table 3 and these are given in Table 4.

The average score on all sections for the accepted group is about 525 and for the group not accepted about 462, or some six-tenths of a standard deviation. Just why the accepted group making a single application should be lower than the accepted candidates from the group making three applications may not be obvious. Probably the students making a single application apply largely to

schools of low tuition which limit applicants to residents of the state. These medical schools are forced to accept lower-standing students than the schools without these restrictions.

Again this year a special study was made of the group reapplying after having failed to gain admission the year earlier. Table 5 lists the figures. This reapplying group contains some very able students who took a "flyer" and then continued, usually in their senior year of college. Also included are some students found unfit but who continue to hope for admission. As might be expected, a smaller proportion of this reapplying group is accepted: 40 per cent compared with 57 per cent acceptances for the group applying for the first time. The reapplying group constitutes 23 per cent of all students applying.

TABLE 8. Scores on Medical College Admission Test of Applicants Receiving the Number of Acceptances Indicated

Number of Acceptances	*Number of Applicants	Mean Scores on the M.C.A.T.			
		Verbal	Quant.	Med. Sec.	Science
1	5569	509	516	516	520
2	1421	543	546	542	555
3	324	559	558	554	569
4	84	593	584	584	593
5	22	592	585	601	617
6	6	585	602	623	572
TOTAL	7426	519	525	524	530

\*Number for whom test data were available

TABLE 9. Number of Individuals from Each State Applying to One or More Medical Schools

State	Accepted			Not Accepted			Total		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Alabama	106	7	113	101	6	107	207	13	220
Arizona	38	3	41	14	2	16	52	5	57
Arkansas	114	5	119	57	1	58	171	6	177
California	384	30	414	447	40	487	831	70	901
Colorado	71	7	78	58	3	61	129	10	139
Connecticut	96	6	102	114	8	122	210	14	224
Delaware	11	1	12	13	3	16	24	4	28
District of Columbia	61	7	68	69	6	75	130	13	143
Florida	154	9	163	114	7	121	268	16	284
Georgia	131	8	139	101	4	105	232	12	244
Idaho	30	1	31	13	2	15	43	3	46
Illinois	378	20	398	269	21	290	647	41	688
Indiana	170	10	180	102	11	113	272	21	293
Iowa	124	8	132	28	2	30	152	10	162
Kansas	98	6	104	62	3	65	160	9	169
Kentucky	107	17	124	60	4	64	167	21	188
Louisiana	154	12	166	64	7	71	218	19	237
Maine	22	2	24	19	0	19	41	2	43
Maryland	108	6	114	71	4	75	179	10	189
Massachusetts	189	9	198	223	18	241	412	27	439
Michigan	287	16	303	165	18	183	452	34	486
Minnesota	139	11	150	58	4	62	197	15	212
Mississippi	111	2	113	78	5	83	189	7	196
Missouri	130	6	136	66	5	71	196	11	207
Montana	27	2	29	22	2	24	49	4	53
Nebraska	120	2	122	93	6	99	213	8	221
Nevada	0	0	0	8	0	8	8	0	8
New Hampshire	15	2	17	11	2	13	26	4	30
New Jersey	258	18	276	323	16	339	581	34	615
New Mexico	17	0	17	18	0	18	35	0	35
New York	916	84	1000	1179	108	1287	2095	192	2287
North Carolina	149	6	155	122	14	136	271	20	291
North Dakota	43	1	44	11	0	11	54	1	55
Ohio	397	17	414	262	23	285	659	40	699
Oklahoma	114	6	120	54	7	61	168	13	181
Oregon	72	4	76	49	1	50	121	5	126
Pennsylvania	527	42	569	579	38	617	1106	80	1186
Rhode Island	24	2	26	44	0	44	68	2	70
South Carolina	96	7	103	50	4	54	146	11	157
South Dakota	36	0	36	14	0	14	50	0	50
Tennessee	168	10	178	52	1	53	220	11	231
Texas	361	26	387	174	14	188	535	40	575
Utah	59	0	59	45	0	45	104	0	104
Vermont	23	1	24	9	0	9	32	1	33
Virginia	153	8	161	102	3	105	255	11	266
Washington	109	9	118	76	2	78	185	11	196
West Virginia	67	5	72	73	7	80	140	12	152
Wisconsin	154	7	161	51	8	59	205	15	220
Wyoming	14	0	14	12	0	12	26	0	26
Canada	8	4	12	47	1	48	55	5	60
U.S. Possessions	54	2	56	92	14	106	146	16	162
Foreign	66	6	72	134	18	152	200	24	224
Not Stated	16	0	16	358	19	377	374	19	393
TOTAL Number of Individuals	7276	480	7756	6430	492	6922	13706	972	14678

Table 6 gives the mean scores on the Medical College Admission Test for the group reported in Table 5.

In the main, these averages are lower than the averages of the group applying for the first time.

### *Study of Applicants*

Table 7 gives the number of acceptances received by the group re-applying and by the group applying for the first time, and Table 8 gives the mean scores for the total group classified by the number of acceptances offered. It may be noted that in every case where the number of applicants is over 20, the mean score goes up in direct proportion to the number of acceptances offered.

The final table, number 9, divides the applicants according to the state of residence and indicates the number accepted from each state. As has been true for a good many years, about half the applicants (7,437) come from seven states. These states are, in order of the number of applicants:

New York, Pennsylvania, California, Ohio, Illinois, New Jersey and Texas. Of the students gaining acceptance, 45 per cent came from these states. The applicants from New York State number 2,287 or 16 per cent of all applicants, and this state supplies 13 per cent of all accepted applicants. For the second year, exactly 1,000 New York residents were reported as accepted.

Of the states supplying 100 or more applicants, New York had the lowest proportion of acceptances and Iowa the highest. New Jersey, a state well able to support medical education, but which has no medical school, had 615 of its residents apply and 45 per cent were accepted.



# Medical Education in Communist China

LESLIE G. KILBORN

THE CLAIM IS frequently made that among various practical achievements the Chinese communist government is doing much to promote the health of the people. However, an experience of more than two years under the new administration in China convinced me that its health program can have only the opposite effect to that so widely proclaimed, and that very serious retrograde steps are being taken.

The backward action is evident in at least three spheres: (1) the rejection of the traditional system of ethics which has governed the activities of the profession in most areas in which scientific medicine has prevailed; (2) the repudiation of the scientific spirit, and the substitution for it of an authoritarianism characteristic of the prescientific era, and (3) the enforced lowering of standards of medical education.

## Communist Medical Ethics

The first direct contact with com-

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munist forces had by members of the medical staff of West China Union University was through surgical teams, organized to render service to those wounded in the fighting between nationalist and communist armies around Chengtu. Members of one of these teams were forbidden by communist officers to assist wounded nationalist soldiers since these were "enemies of the people."

That this decree did not represent the unenlightened outlook of a single individual was soon made evident. After communist control had been established, a resident military officer was placed in the university. One of his duties was to lecture on the changed attitudes necessary in the new China. He told the medical students that reactionaries, such as landlords and other "enemies of the people" could not receive equal treatment in the hospitals. In fact, they should be denied all treatment.

Following one such lecture several students privately complained that on graduation they would be expected to become judges and executioners. Their first duty would be to discover whether a patient merited treatment, and then to refuse it if not deserved,

thus possibly becoming responsible for the death of the patient. Some of these students would have withdrawn from the study of medicine had this been permitted.

It was made clear that in the new China all individuals were not equal before the law. While all Chinese were regarded as citizens, only some qualified as "people" and deserved consideration. Others were not "people" at all, but were classed as reactionaries, landlords or other types of enemies of the people. Therefore, the physician's first duty when confronted by a prospective patient was the diagnosis, not of his disease, but of his status. This, of course, is a complete reversal of the traditional attitude which is not concerned with the social, economic, political, religious or racial status of the patient.

This attitude was again brought vividly to my attention shortly before leaving China when I was asked to attend a Belgian Catholic priest, seriously ill with typhoid fever, although I did not usually engage in clinical work. His fellow priests had been unable to persuade any Chinese doctor to see him, since from several points of view he was not entitled to receive medical attention. Political, religious, racial and economic factors combined to place him without the pale, and a temperature of 106°F. did not in itself constitute a sufficient cause for medical intervention.

Thus, new rules of conduct are being demanded from the medical profession, in place of those embodied in the ancient Hippocratic oath, in Christian ethics or in any of the other guides to conduct worthy of the name of ethics. The medical profession is being made into an instrument for the enforcement of official policy, a policy which has decreed the elimination from society of certain groups or

classes whose existence is obnoxious or is believed to constitute a danger to the new order.

### Repudiation of the Scientific Spirit

It is generally agreed that the scientist acts in harmony with what has been called the scientific spirit. By definition this includes such components as honesty in observation and in reporting results, a critical attitude as opposed to the blind acceptance of authority and complete objectivity in the evaluation of the work of others or of oneself. All three of these components of the scientific spirit have now been condemned and discarded.

This repudiation of the scientific spirit first became evident in the modern world when the Soviet authorities gave official support to certain teachings in the field of genetics, with the result that it became dangerous to advocate any contrary theories. The Chinese have slavishly followed the Russian communists in this respect.

The insistence by the authorities of the new regime in China upon the adoption of official views in the field of science has affected medical education very directly in at least two sciences other than genetics. The first to be involved was therapeutics. This became evident in 1950 and 1951 when much publicity was given to "tissue therapy," and its adoption all over China was pushed by government agencies.

The basic principles underlying tissue therapy are attributed to Filatov, and were developed by Rumyantsev into a method of treatment. The underlying theory is that when a piece of tissue is removed from the body and preserved under unfavorable conditions, such as low temperature, "biogenic stimulators" are pro-

duced. These are believed to increase the tissue's power of survival. It is claimed that "biogenic stimulators" are formed whenever unfavorable factors exist, and may be recovered from either plant or animal tissues.

When these principles are put to practical use in what is commonly called "tissue therapy," excised animal tissue is kept for from five to seven days at a temperature of 2° to 4°C. to promote the production of "biogenic stimulators." When this tissue is transplanted under the skin of a patient the "biogenic stimulators" are supposed to influence the entire organism, but especially the nervous system. This form of therapy is said to be effective in the treatment of a wide variety of diseases, particularly chronic infection or inflammation and their after-effects, such as scarring.

The rejection of the scientific spirit is shown, not so much in the claims for tissue therapy, although based upon seemingly insufficiently controlled evidence, as in the insistence by official bodies that tissue therapy be adopted. A nationwide chorus of praise for the new form of treatment was raised throughout communist China, both in the popular press and in professional publications. Nobody dared criticize the published results, even though few if any attempts had been made to properly control the conditions under which these had been obtained. Such reports as the following became common:<sup>1</sup>

"The Ministry of Health of the East China Military Commission held a conference on tissue therapy, consisting of 77 persons representing each province and municipality in the area. Included were administrative officers of health, specialists and clinicians. From August 15 to 20, 1951, they met for five days. On the final

day of the conference Vice Minister Chuen, of the East China Military Commission, reported on the findings and clearly indicated the direction to be taken in the future by the East China Area (E.C.A.) in the promotion of tissue therapy. At this conference the E.C.A. established a unified organization for the promotion of tissue therapy, namely the E.C.A. Tissue Therapy Promotion Committee. This committee is divided into the following five sections: theoretical, clinical, productional, administrative and educational.

"From the reports made by the various representatives at this conference regarding the results of tissue therapy promotion in the E.C.A., we can already reach general conclusions. In the E.C.A. tissue therapy is being practised in 31 municipalities and counties, including 84 clinical units. Over 7,000 patients have received tissue therapy, of whom there are reports on 5,211 persons. The important results are as follows.

"These results are given in a table, which included 15 different diseases. The following six are typical:

"Disease	No. of Cases	Percentage showing results
Bronchial asthma.....	1077	61.3
Peptic ulcer.....	588	61.2
Corneal opacity.....	191	49.8
Optic atrophy.....	87	27.6
Retrolbulbar neuritis.....	67	54.7
Corneal ulceration.....	49	87.8"

The two disturbing things about the above mentioned conference and its conclusions are: (1) a government official "clearly indicated the direction to be taken" in the promotion of a method of treatment; (2) The acceptance by a group of medical specialists and practitioners of the "findings" of the conference and their

publication without any evidence of control or attempt at statistical analysis of the reported "results." To obtain "results" in 27.6 per cent (the lowest percentage reported for any disease) of cases of optic atrophy is surely remarkable.

Physiology was the second of the medical sciences to be affected by official decree. Here the government is insisting upon the acceptance by all physiologists of what it considers to be Pavlovian concepts. Although information on this subject is more scanty, reports have been received of physiologists having been ordered to Peking to receive special instruction in Pavlovian physiology. It seems certain that physiology and psychology in China are following the pattern now clearly evident in Soviet Russia, and reported by London,<sup>2</sup> Gantt<sup>3</sup> and others.

"Objectivism" has been denounced in China, and the people are ordered to declare themselves. It is maintained that no problem has two sides. Only one opinion is tolerated, and any ideas contrary to the official ones may be mentioned only preliminary to their denunciation. Thus authoritarianism, characteristic of the prescientific period, is once more in the ascendancy, and honesty and objectivity are no longer possible in the uncritical acceptance of officially decreed scientific dogma. All three of the fundamental characteristics of the scientific spirit have been discarded. In the new atmosphere thus created it has been possible to get previously trustworthy scientists to sign their names to statements which a few years ago they would have refused to sign without a great deal more direct evidence. Only when we realize that the sole pathway to survival in a communist country is complete conformity with official doctrines can we

understand how it is possible to get presumably reputable scientists to sign statements of the type prepared by the Chinese Medical Association and published in December 1952, as a supplement to the *Chinese Medical Journal*.<sup>4</sup>

#### Lowered Standards in Medical Education

Such standards became compulsory as soon as the communist regime came into power. Our first direct intimation of this policy was at a meeting of health workers in the southwest area, who convened in Chungking early in 1950. The slogan of this convention, insofar as it concerned medical education, was "emphasize quantity; do not emphasize quality!" It was the latter half of this statement that was so alarming, for it constituted an announcement of a new policy. From that time on, quality in medical education was to be relegated to a subsidiary position, in order that the number of doctors might be multiplied enormously.

The educational authorities were not slow to insist that the new policy be put into effect. The standard medical curriculum was reduced to five years, including premedical instruction and internship. Actually, the reduction was even more drastic than appears on the surface, for a conservative estimate would assign at least one-fifth of the total time of study to that spent in required political courses and compulsory attendance at mass meetings, leaving four years or less for premedical and medical studies, including a year of internship. Under the nationalist government the minimum had been six years, but some institutions required seven and one demanded a total of eight years.

A further modification also was

put into effect almost immediately in that the compulsory internship was changed from one in which the student rotated through different hospital services to a so-called straight internship in a single department. He then graduated as a "specialist" in the branch of medicine in which he had interned. No longer was anyone permitted to become a general practitioner. Every new doctor was to commence his career as a "specialist." It is planned that the medical studies prior to the intern year shall be adapted to the specialty selected. For example, the man working toward graduation in surgery will be required to take more anatomy than his classmate planning to become an internist. This means that each teaching department will have to provide several parallel courses, the content of each designed to fit one or more of the specialties. Lack of staff members has necessitated the temporary postponement of this fractionation of the medical course in many centers.

Other changes also were carried out to shorten the course, such as dropping English or other foreign languages from the curriculum, except for one very elementary course in the first year. At the same time those colleges which had employed a European language as a medium of instruction were required to use Chinese only, both for lectures and hospital records. Chinese textbooks were mass-produced by inexperienced and often unqualified authors, and were substituted for the English books that had been used very widely under the former regime. Many of the new books were translations of standard English texts, but the general complaint was that they contained many inaccuracies and were much abridged. According to recent reports, an attempt now is being made to substi-

tute translated Russian texts for those prepared from western sources.

Another step taken to degrade medical education was the institution of two- or two and one-half-year courses, also for the training of "specialists." For example, in the spring of 1951 the W.C.U.U. was forced to accept 200 students into such a course, divided into four groups of 50 students each. One group was to graduate as surgeons; another as eye, ear, nose and throat specialists; a third as dentists; and the fourth to be trained as pharmacists. The official classification of the pharmacist as on a par with the surgeon or E.E.N.T. specialist, in so far as the period of training is concerned, is illuminating. The same is true of the five-year course, in that the eight departments in which the W.C.U.U. was instructed to prepare "specialists" were: internal medicine, surgery, pediatrics, E.E.N.T., obstetrics and gynecology, public health, dentistry, and pharmacy. The average age of the "specialists" graduating from the two and one-half-year course would be about 19 or 20 years.

Further lowering of standards inevitably resulted from the emphasis upon ideological rather than professional attainments. As long as the "thinking" of a student corresponded with the officially decreed doctrines his academic performance was of relatively minor importance. Conversely, unless he were politically reliable it would be impossible for him to gain admission to any medical school, no matter how brilliant his academic record. Many bizarre forms of examination were tried, which tended to eliminate the possibility of failure by the student. For example, one method was group work in which each of the six students in a group received the average examination



mark of the members of the group. Efforts were made to include both good and mediocre students in each group, so that the average mark would almost certainly be above the passing grade.

The inclusion of students and servants as voting members of the faculty also tended toward lowering of standards, partly because they were ignorant of the requirements of medical education and partly because they were usually very insistent that the school should adhere to such official policies as "quantity not quality." This easily was interpreted to mean that every student must be promoted.

In pursuance of this same policy the size of each class was greatly enlarged, although it was quite impossible to increase equipment, supplies or staff in proportion. Actually, the number of qualified medical educators in China decreased with the communist revolution, due to the expulsion or voluntary departure of all foreign teachers, the escape to Formosa or elsewhere of many of the better qualified Chinese staff and the imprisonment or suicide of others. It is now reported that former faculties, among the members of which team spirit presumably had developed, are being broken up by the transfer of individuals to other institutions while outsiders are brought in as replacements. To what extent Russian medical educators have been engaged as "advisors" is not known. Probably the number is small, except possibly in the northeast area.

Another drastic change in medical education has been the breaking up of the universities, of which medical schools were component parts. Their places have been taken by so-called medical universities. For example, the W.C.U.U. has been deprived of its colleges of arts and science, its staff

and students having been dispersed to other institutions.

On the other hand, the medical college of the National Chungking University was moved to Chengtu and combined with that of the W.C.U.U. to form the Szechwan Medical University. This university is responsible for training students in the various branches of medicine and in dentistry, pharmacy, nursing and hospital technology. The number of students greatly exceeds that formerly enrolled in the W.C.U.U., whereas it is very unlikely that the qualified staff is as numerous as it was before the advent of the communists. At least 20 former senior faculty members have left the country or been transferred to other institutions. One has committed suicide and another was imprisoned for five months. On the other hand, there have been some transfers from other places, but I have not heard of any well-qualified medical educators among them.

Is anything to be set on the credit side? A great deal of enthusiasm has been engendered among students for service to the common man. Many have been enrolled to help in extensive programs of smallpox inoculation, in campaigns to give rudimentary training to midwives with a view to eliminating tetanus neonatorum and in other forms of public health work. But against these we have the pernicious definition of the common man, which excludes a portion of the population. We have the repudiation of the fundamental right of the scientist to criticize, which must result ultimately in the destruction of science itself. We have isolation from the scientifically progressive west, coupled with glorification of the achievements of the soviet block. The isolation is so complete that a new generation is growing up in ignorance



of what modern medicine really involves and what it can accomplish for the well-being of the human race. The retrograde steps, very unfortunately, seem to be of much greater significance than those taken in the opposite direction.

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### *The Foundation of Medicine*

WHAT IS THE foundation of medicine? Webster's dictionary defines foundation in part as: "the basis or lowest part of a structure; ground work; the principles or origin of anything," so that what we are discussing is the fundamental basis of medicine. It springs from a long historical evolution stretching through generations into the ancient priesthood of primitive people. No matter how filled with change, unsettlement and innovation the present may seem to be, this fundamental basis bears a proper relationship to the past which, at least in perspective, seems always defined and settled and to the future dimly perceived beyond our ken. What are the elements of this foundation? There are, broadly, four elements which may be classified as:

1. Personal, or having to do with character.
2. Cultural, as related to general education and intellectual capacity.
3. Technical, or knowledge acquired expertly through years of study in the vast field of medicine and its kindred allied sciences.
4. Social, or the public aspect of medicine.—*Louis Rene Kaufman*, in the *Journal of the Association of American Medical Colleges*, September 1935.

# What Have Radio and Television to Contribute to Continuation Medical Education?

**W**HAT HAVE radio and television to contribute to continuation medical education?

Potentially, a very great deal. Effectively, however, and according to past and present experience, they have contributed comparatively little. The fault lies not in the media but rather with the educators who seemingly fail to grasp the elementary fact that the effective utilization of radio and television calls for a knowledge of their inherent communication assets and liabilities. Both radio and television are spoken of as mass communication instruments, and by that token educators look upon them as glorified trumpets, whereby a whisper can be made a roar. In a less imaginative way radio and television are conceived of as means for the reduplication of an original message.

Perorations on "the great promise of television" quite commonly begin with a suggestive reference to the invention of printing. But few among the orators appear to have any awareness of the great length of time it took mankind to master the *art of the written word*. Indeed their trouble, and ours too, is that we naively believe that words are words, that when words are written down, they form

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a written communication, and when they are spoken they form a spoken communication; that one can *speak* a written speech, or *write* a spoken speech, all within one communication framework. Actually, it can't be done, and when it is attempted, dull mediocrity and failure result.

Television is of recent origin and few of us have had much experience with it as an educational media. I have had none, first-hand, but I have had some 30 years of experience with radio, and a good deal of experience in the production of educational motion pictures. These years of experience are warrant for my pessimism. The radio never has been effectively utilized as an educational medium, nor has the motion picture; why then should television? I am aware that there have been and that there now are some fine and instructive programs being presented on the radio, and that some exceptionally fine films have been produced. But all of these do not add up to the effective utilization of radio or the motion picture as educational media. These are the exceptions that point to the possibilities, but nothing more.

I am persuaded that we will never make effective use of radio and television until and unless we thoroughly and deeply analyze their communica-

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tion assets and liabilities as educational tools. This, I must add, will prove an intricate, costly, and time-consuming job, but until it is achieved we will "fuddle-duddle" along. Also, we will continue to deceive ourselves. Allow me to cite some of my experiences. I gave my first broadcast in 1922. In 1925, I gave a weekly series of talks, having for my announcer the late Graham McNamee. For more than 10 years I administered the New York Academy of Medicine's program given over the WABC network, and initiated Ed Murrow into the intricacies of medical broadcasting.

For more than 25 years I have supervised and administered the radio programs of the voluntary health agencies of Greater New York. As my experience grew, so did my dissatisfaction with our radio performance. Some 10 years ago, with a small grant from the Rockefeller Foundation, we made a critical study of the broadcasting of health information. The study made clear how very little we knew of radio as an educational medium; how little, in other words, we knew what we were doing, and how and why. Here are a few of the problems of which we became aware.

Radio is a medium for the spoken word and not for the written word. The vital differences between the spoken word and the written word are not easy to formulate or to describe. The illustrious Greek scholar, S. H. Butcher, has written an illuminating chapter on this subject. It is to be found in the volume, "Some Aspects of the Greek Genius," published by the Macmillan Company of New York in 1904. The burden of Butcher's arguments, though he never says so in so many words, appears to be this: In the spoken word, one addresses himself to the living person, while in the written word, one ad-

resses himself to the subject matter.

In the radio address and in television as well, does one then primarily address himself to the listener, or does one talk about a subject? This apposition of person and matter may appear to be a simple issue, but the implications of the apposition are involved and indeed enormous. To address oneself effectively to a person, one must be competent to recognize and to deal with the psychological emergencies arising during communication. But to address oneself to subject matter requires no more than an adequate knowledge of the subject and a competence to organize that knowledge in an orderly fashion. To communicate effectively with the living person, implies psychologically, to arouse curiosity, to enlist sympathy and to lead to action, while he who talks to the subject matter so to say, sets out his stores and wares for him that passes by to partake as he wishes. In these connections, it is pertinent to observe that traditionally, the medical man almost invariably addresses himself to his subject. His mind is on the matter, not on his listener. He speaks of heart disease or diabetes or cancer. He is seldom and little mindful of his listening audience.

A related problem in the effective utilization of radio and television concerns that which is permissible in print, received through the eye, and that which is permissible in speech, received by hearing. Print is, in the last analysis, a private form of communication, whereas radio and television are, in essence, public. We also need to know, "What is the span of attention? How long can the listener attend the message and comprehend and respond to what is addressed to him?" Since both radio and television are mass communication media, the

## What Have Radio and Television to Contribute?

question must arise, "What audience or audiences are we aiming at?"

Television is a great deal like the talking motion picture, a combination in effect, of radio and the motion picture. As radio is preeminently the medium of the spoken word, so television is preeminently the medium of communication by motion. It is the medium of gesticulation, of movement, of happenings. It is understandable, therefore, why boxing, wrestling, baseball and, in fact, most sports lend themselves so fittingly to television. But here we must inquire how much of education and medical education in particular, involves the exposition of pertinent motion. In this connection, it is interesting to observe that surgical procedures frequently have been featured in the so-called medical television broadcasts. A number of other problems come to mind, such, for example, as in educational television: Which feature should predominate over which? Sound over sight, or sight over sound? Should the picture serve to illustrate the text or should the text serve to explain the illustration, that is, the picture?

Touching on the deeper psychology of communication, and bearing in mind that the television telecaster cannot establish empathic relations with his audience and hence cannot modify and adapt his message, the problem arises: What order of material is best suited for television and radio, that which is already known

and which is to be presented in review and reintegration or new material with which the listener is likely to have few ready associations?

There are many other problems involved in the effective use of television as an instrument of medical education. Those which I have already cited will suffice to show how very complicated the matter is, and they will, I believe, suffice to validate my contention that until we do ask and find answers to these and other questions, we are not likely to do any better with television than we have done with radio. And that has been mighty poor, indeed.

### Conclusion

I end as I began, with the affirmation that *potentially* radio and television can contribute greatly to continuation of medical education. But there is much to be done before these potentialities are realized. If the overtones of my presentation sound over-pessimistic, it is because I am persuaded that here an excess of enthusiasm would prove a mortal plethora.

I would urge upon this distinguished body that it should sponsor research into what I have called "the communication assets and liabilities" of television and radio in medical education. I suspect that some of the foundations interested in these fields, may prove sympathetic and responsive to such research.

# The Current Status of Anatomical Teaching

## in Selected Medical Schools

BENJAMIN A. KAMRIN

TO DETERMINE the role that the anatomical subjects play in medical education, a questionnaire was constructed and sent to the heads of the departments of anatomy in certain selected American medical schools. In addition correspondence and numerous discussions were carried on, and in some instances personal inspection of the schools was made. The 12 medical schools that were selected had conventional departmentalized teaching and were widely diversified as to geographical location, type of support, physical facilities, faculties, number of students and age of institution. To further round out the picture of current anatomical teaching, an effort was made to assay the correlative teaching of three additional medical schools and the integrative methodologies practiced at three others. This report, therefore, concerns itself with 18 medical schools.

Of prime importance was the need of determining the objective or objectives which each of the anatomy department heads had in mind and the methodology employed in implementing these aims. Aside from the factual

data obtained, there were many private opinions expressed.

The questionnaire used was divided into six areas with space provided for additional comments for those disagreeing with the proposed assertions. The data were collected in answer to these major problems:

1. What are the chief objectives to be achieved in medical schools anatomical courses?
2. What time should be allotted to anatomical studies?
3. What teaching techniques are utilized in the anatomical courses?
4. What correlation do you practice in the presentation of the anatomical subjects?
5. How do you evaluate the success of your teaching methods?
6. What is your opinion of the future trend of anatomical instruction in the medical curriculum?

Table 1 gives a list of the proposed objectives to be achieved and the replies received. Examination of the data by dividing them into two categories (private and public schools) shows no significant difference in replies when related to such division. Therefore, the data will be treated as representing the composite viewpoint of all the selected medical schools.

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Table 1  
OBJECTIVES

	Selected Medical Schools		
	Agree	Differ	No Answer
1. To provide the student with sufficient anatomical information to enable him to understand the basic principles of other preclinical subjects .....	9	1	2
2. To give the student an understanding of basic anatomical principles without regard to anatomical detail which might be needed later in clinical study.....	4	4	4
3. To provide the student with the anatomical information that he will need in future clinical work.....	5	5	2
4. Do you think a course in human anatomy taught to medical students should differ in emphasis from a similar clock-hour course given to biological science students.....	11	0	1

**Summary of Findings:** Aside from general agreement that the objectives of a medical school anatomy course be directed specifically toward medicine and serve as a foundation for the other preclinical courses, there was disagreement as to the scope and relationship of such instruction to the clinical subjects. A careful evaluation of the results of the questionnaire, supplemented with personal conversations, permitted the following conclusions:

1. Human anatomical instruction should be oriented and emphasized for the needs of the medical students. These needs are specifically: knowledge of the structure and function of the living human body.

2. Human anatomical instruction should serve as a basis for understanding the other basic medical sciences but not necessarily the clinical sciences.

3. The individual studies comprising anatomy—gross anatomy, histology, embryology and neuroanatomy—are morphological separate studies with minor degrees of correlation.

4. It is implied in the answer to the objectives to be achieved that the student will in some fashion correlate these subjects in his mind and thus

achieve integration of the material.

#### Time Allotment

The total time allotted to the anatomical subjects in the first year varied from a minimum of 495 clock-hours at Johns Hopkins University School of Medicine to a maximum of 777 hours at the University of Michigan. When the total time was divided among the different subjects, it was found that an average of 56 per cent of the total hours was devoted to gross anatomy and only one per cent to the correlation clinics.

**Summary of Findings:** 1. The majority opinion, despite the range of clock-hours devoted to the anatomical subjects in different schools, was that no decrease in clock-hours devoted to the anatomical subjects should be permitted.

2. In the opinion of the minority, the time allotted to freshman anatomy could be substantially reduced and more efficiently utilized if there were further anatomical instruction in the clinical years.

3. Although the mean clock-hours devoted to the anatomical subjects for all the selected medical schools equalled 644 hours, the majority required less than this number of hours to achieve their stated objectives.



### Teaching Techniques

The third section of the questionnaire asked: what teaching techniques are utilized in the anatomical sciences? This was followed by seven subheadings which are given as positive findings in Table 2.

subjects," six of the selected schools used radiological personnel and five of the schools obtained collaboration with both preclinical and clinical departments.

### Degree of Correlation

To obtain a more clearly defined

Table 2  
TEACHING TECHNIQUES

	All Selected Schools			
	Yes	No	No Answer	Hours
Lectures				
Definite ratio to laboratory work	0	11	1	
Average number of lectures in gross anatomy				47
Routine use of prosections and demonstrations	8	3	1	
Routine use of lantern slides	9	1	2	
Routine use of motion picture films	8	3	1	
Routine use of fluoroscopic or x-ray equipment	8	0	4	
Use of radiological personnel	6	2	4	
Collaboration with preclinical and clinical departments	5	3	4	

**Summary of Findings:** 1. There was little appreciable difference between the various aids used in all the selected schools.

2. An average of 47 clock-hours of lectures were given in gross anatomy. This indicated that there was approximately one lecture hour to every six and one-half laboratory hours.

3. To achieve the majority espoused objective: "to provide the student with sufficient anatomical information to enable him to understand the basic principles of other preclinical

picture of the degree of correlation practiced by the selected medical school's anatomical departments, section 4 of the questionnaire was devoted to "what correlation do you practice in the presentation of the anatomical subjects?" This topic was subdivided into: intradepartmental correlation and interdepartmental correlation; each with four subdivisions as indicated in Tables 3 and 4.

**Summary of Findings:** 1. *Intradepartmental correlation.* It is significant in these answers that although eight

Table 3  
INTRADEPARTMENTAL CORRELATION

	All Selected Schools		
	Yes	No	No Answer
Is an effort made to correlate the various anatomical subjects with each other?	7	4	1
Is the schedule so arranged that gross anatomical organ systems are studied simultaneously with the histology and embryology?	4	7	1
Are all the anatomical courses taught in the same laboratory or in close proximity?	8	3	1
Do you believe such correlation beneficial?	8	3	1

**Table 4**  
**INTERDEPARTMENTAL CORRELATION**

	All Selected Schools		
	Yes	No	No Answer
Are the anatomical studies completed prior to the initial study of other preclinical subjects?	6	5	1
Are correlated schedules worked out jointly with physiology and/or biochemistry?	2	9	1
Do you believe it desirable to closely correlate all basic medical sciences with each other and with clinical sciences?	7	4	1
If you were to have complete freedom of action and an adequate staff, where would you place the anatomical sciences in the medical curriculum?*			
a. As they are	8		
b. Greater concentration in the first year	1		
c. Spread out over first year	1		
d. Spread out over all four years	2		
e. Integrated with other preclinical subjects	2		
f. Integrated with entire curriculum	4		

\*Some of those questioned gave multiple answers to this question, thereby making the total expressions exceed the number responding.

representatives of the 12 schools believed that such correlation is beneficial, only seven made an overt effort to achieve it and only four arranged their anatomical subject schedules so as to achieve this objective.

2. *Interdepartmental correlation.* Although seven of the selected medical schools believed it desirable to closely correlate all basic sciences, only two departments were able to achieve this result.

3. From the opinions expressed by the heads of the anatomy departments, it was assumed that the majority were in favor of more correlation but were unable to establish this relationship.

4. A strong minority (four) favored the integration of anatomy with the entire curriculum of medicine. One of the schools had achieved this aim by having clinical anatomy in the second year, surgical anatomy in the third year, and anatomical courses for the residents. Three of the selected schools had applied anatomy courses at the end of the first year or early part of the second year.

#### Schools with Intradepartmental Anatomical Courses

Historically considered, the present departmental system of courses is an artificial outgrowth and division of an ever-increasing body of knowledge. Prior to the establishment of formal medical education, most of the practitioners learned their profession by working for and with preceptors.

Even after the establishment of the first medical school in 1765, formal training was coupled with preceptorial training. In many sections of the country this procedure persisted until the late 19th century. The formal medical training consisted of courses in anatomical morphology and function, surgery, chemistry, natural sciences and practice of medicine and therapeutics. The anatomical sciences, which usually include physiology, surgery and midwifery (obstetrics), were given by one professor as late as 1820. By 1850, most of the medical schools had divided this group so that a professorship existed for each specialty. The anatomy instructor, how-

ever, continued to deal with the entire subject of anatomy; i. e. gross anatomy, histology, neuroanatomy and embryology, until the early 20th century. After this period, departmentalization became the rule.

In 1924 an integrated anatomical plan of instruction was reinstituted by Prof. Davenport Hooker at the University of Pittsburgh School of Medicine. All the anatomical courses were unified into one plan of instruction, and were taken for one year (first). Embryology and histology of the various tissues were closely correlated with the areas being dissected; neuroanatomy was taught with the dissection of the head organs of special sense. Dr. Hooker continued this plan and stated that "... students trained by this method have demonstrated a more permanent, as well as more thorough comprehension of anatomy than their predecessors. Retention of details is at best transient, and the substitution of comprehensive grasp of the subject for facile and temporary glibness in minutiae seems to us worth while."<sup>1</sup>

Prof. O. F. Kampmeier of the University of Illinois School of Medicine introduced an unified anatomical curriculum in 1928. This plan, which ran until 1951, was similar to that of Dr. Hooker's. Dr. Kampmeier stated: "The functional coordination of all parts of the body which the nervous system supervises suggests a review of all parts of the human body as a complete living organism at the conclusion of the course."<sup>2</sup> In a recent communication, Dr. Kampmeier says as his considered opinion that the correlated course of anatomy "proved to be successful and a benefit to both students and teachers."<sup>3</sup>

In 1944, freshman anatomy was first presented as a single correlated course at Temple University School

of Medicine. Prof. John F. Huber stated: "Because of the logic and naturalness of the correlated approach, it definitely appeals to the students as has been demonstrated in our school by finding that all but two students out of a freshman class of 137 expressed themselves as favoring this program at the end of our last school year."<sup>4</sup>

Despite the relatively long history of these correlated intradepartmental anatomical programs, very few other schools attempted this program in recent years. Dr. Huber succinctly summarizes the disadvantages of the plan as:

"(1.) A staff member who has been in the habit of being responsible for the teaching of a separate course in one of the phases of anatomy may find it difficult to enter into such a program where he feels that there is no 'domain' which he may call his own. (2.) In consideration of the size of the staff, it may be necessary to remind the administration that although one is presenting just one course to the freshman, it actually represents what previously had been two or three courses each with a staff more or less of its own. (3.) At the present time there is difficulty in finding enough men with a sufficiently broad training to help in the teaching of such a course. (4.) It is necessary that laboratory space be available at any time that it seems advisable to schedule laboratory work."<sup>5</sup>

Another viewpoint on the framework necessary to make correlation work was expressed by Dr. J. H. Comroe of the University of Pennsylvania Graduate School of Medicine. "In our opinion, integrated teaching can be successful only if the chief requirements are fulfilled. These are wholehearted enthusiasm on the part of the faculty to participate in

## *The Current Status of Anatomical Teaching*

this new educational experience, willingness to ignore small differences of opinion in the interest of harmony and cooperation and genuine interest in teaching and the problems of medicine."<sup>6</sup>

The advantages achieved by such intradepartmental correlation in anatomy is abstracted best in the words of Dr. Huber. "First, . . . that this is by far the most logical approach to the subject. . . In the second place . . . the student is less confused . . . many things make sense to him because he carries over directly from gross to microscopic and ties in at the same time the information which is available from the study of development. In the third place . . . the student has more of a chance of finishing the work in anatomy with a better overall concept of the structure of the body and an understanding of the body as a whole from the structural viewpoint. In the fourth place . . . there is no competition for time between the separate courses. . . In a correlated course . . . it is emphasized that the information which one is receiving is all part of a total story. . ."<sup>7</sup>

### **Modified Interdepartmental Anatomical Courses**

Since 1947, the University of Colorado School of Medicine has been experimenting with a revised medical curriculum and reported satisfactory results. Detailed study of this curriculum discloses that the anatomical studies remained as a correlated intradepartmental concentrated study to which the first half-year was devoted. The time allotted was 578 hours and an additional 68 hours were given over to the integrating lecture course of Human Biology (see *Journal of MEDICAL EDUCATION*, December 1953,

p. 9). In the second half of the first year, the customary basic sciences of physiology and biochemistry were taught for 238 hours each, plus biophysics (51 hours), statistics (17 hours) and psychiatry (17 hours). In the third trimester of the second year an integrating thread was again picked up as a Survey of Human Disease which ran into the third year for a total of 636 hours of unifying lectures.

The University of California School of Medicine, Los Angeles, began its medical curriculum in September 1951 with an attempt at wholly integrating the system of teaching. The first-year curriculum was recast so that only 38 per cent of the time was devoted to the anatomical studies, 50 per cent to the functional studies and 12 per cent to the introductory clinical studies (psychobiology, preventive medicine and correlational clinics). It was hoped to achieve an interrelationship of the basic and clinical aspects of medicine and further provide for the contemporary emphasis upon disease as a disturbance of body functions and not merely of structure. The Curriculum Committee wrote: "Within this general framework of subdivision of the first-year students effort, a third major alteration has been introduced. The usual medical curriculum is composed of a series of blocks of subject matter, unrelated in time and content, the attempted integration of which is left entirely to the student whose intellectual faculties are already severely strained by the large amount of information he is expected to accumulate. In most curricula, courses in anatomy are presented during one part of the year, those in biochemistry in another, and those in physiology during still another, or even in the succeeding year, often without any

of the departments involved knowing what the others are doing. Such a block system, with departmental barriers between facets of the same subject matter, does not seem the most suitable way of encouraging the student to gain the coordinated body of knowledge needed for the practice of medicine."<sup>8</sup>

Authoritative information was received which indicated that anatomy had reverted back, in part, to departmentalized teaching. Only the portion of the anatomical studies concerning the nervous system and concomitant physiology remained totally integrated.

Western Reserve University School of Medicine has been in the process of completely revising its curriculum. In line with the criteria laid down by the Committee on Medical Education (report of April 10, 1951), a pilot plan was begun September 1952, utilizing the unit system whereby small groups of students are taught an integrated course of basic sciences in the confines of one room to each group under the direction of a staff member and auxiliary personnel. In this manner, dissection of the body is correlated with the embryology, histology, neuroanatomy, physiology and biochemistry of the organ systems.

It is appropriate at this point, after the presentation of the methodologies of the 12 conventional medical schools in contrast to the three correlated anatomical courses and three modified integrated plans, to use Dr. Hooker's words:

"(1.) A correlated single course in all anatomical subjects is not only possible but judged by this experience, desirable. (2.) By it the student gains a more coordinated working knowledge of anatomy, though less detailed information, than by the older type of separate courses. (3.)

Such a course does not save time by the elimination of redundancies."<sup>9</sup>

### Evaluation of Teaching Methods

The results of the questionnaire and numerous conversations relative to this subject have demonstrated that little objective information pertaining to sound evaluation of teaching methods in anatomy were available. There is lack of valid criteria for comparison of the merits of the block system to that of integration on an objective basis. All one can rely on are opinions and beliefs.

Comments received confirm the fact that the majority of department heads relied almost exclusively on their own anatomical examinations. These examinations in turn were predicated on the information given or syllabus followed in presenting the course. In the final analysis, adequate information on evaluation must be obtained in order to retain the *status quo* or to proceed to other methodologies.

To resolve this important question will require extensive research. A procedure which may be of some value would be to give a test based on clinical anatomical knowledge to all medical students at the beginning of the fourth year. This would tend to establish a norm for the conventional schools' methodology, which then could be used to compare with the results from the correlated and integrated teaching schools.

### Trends Predicted by Department Heads

Under Section F of the questionnaire, the question was asked: "what is your opinion of the future trend of anatomical instruction in the medical curriculum?" The comments clearly indicated that most of the department heads of the selected schools



believed that correlation and integration would be the future trend of the anatomical subjects and the entire medical curriculum.

### Conclusion

Detailed examination of the anatomical methodology of 12 selected medical schools, three correlated anatomical methodologies and varying degrees of integrated programs of three medical schools disclosed the following facts and opinions:

1. The majority of the selected medical schools' anatomy department heads agreed that the objective of the course was to enable the student to understand the basic principles of other preclinical subjects.
2. The time allotted to the conventionally-taught anatomical subjects, although varying from 495 to 777 clock-hours, was thought by each department head to be the irreducible minimum. It was thought by some that reduction in descriptive details might permit time curtailment.
3. The teaching techniques and aids were similar to a great extent for the selected schools. Collaboration with preclinical and clinical departments for correlation clinics was in the minority.
4. Intradepartmental correlation of the anatomical subjects was found to be at a minimum in the selected schools although the majority of the department heads believed such correlation beneficial.
5. Interdepartmental correlation of the basic sciences was attempted by only two anatomy departments of the selected schools, although seven of the 12 selected anatomy department heads believed it desirable to correlate all basic and clinical sciences with each other.
6. The objectives of the correlated

and integrated anatomical methodologies (experimental schools) was to make the entire content of the medical curriculum a unified whole. Since complete coverage of medical education is impossible within its present framework, selection of the content of a program must be a continuing process, requiring emphasis on the basic principles, methods and scientific evaluation of data. In this context, anatomy is only one means of teaching the biologic aspects of man; the others are function, growth, behavior and effects of environment.

7. Very little information existed on the objective evaluation of anatomical teaching to aid in equating the various methods.

8. The majority opinion of the surveyed group of medical schools' anatomy department heads indicated a trend toward correlation and integration of the course and curriculum.

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# Medical College Admission Test Scores as an Aid in Teaching Medical Statistics

J. ALLEN SCOTT and PEGGY M. BRENKUS

WITHOUT IMPLYING any general conclusions regarding the value of the Medical College Admission Test, we are reporting the successful use of these tests as a basis for teaching a course in medical statistics. Comparative information regarding success in other courses as related to the test scores also is presented as an interesting corollary.

The course in medical statistics is a required course given in the first half of the second year as 16 two-hour laboratory periods, the class being divided into three sections of approximately 50 students each. The material is presented to the students as a series of problems, each unit of which can be solved by students of median ability in approximately 90 minutes. The last portion of each period is devoted to discussion of the problems.

A serious difficulty in teaching this course is presented by the widely differing mathematical background of the students. Additional material is included to provide broader comprehension of each subject for the students with a superior mathematical background. Those with poor background for this subject are encour-

aged by personal attention and by occasional suggestions for omission of less essential portions of the work. To facilitate this attempt to meet the needs of students with varying backgrounds, in the fall of 1951 a class was divided into three sections on the basis of the scores attained on the quantitative ability portion of the Medical College Admission Test. The same material was presented to each section but the emphasis differed in line with the purpose stated above.

Additional information regarding our teaching methods may be pertinent. The students were informed that no grades would be presented to the dean's office but that every student would have to pass a final examination showing a certain minimum knowledge of the subject. Moreover, they were told that confidential grades would be kept by the instructors for reference in case personal recommendations were requested for any purpose.

It has been our experience over the past several years that 90 per cent of the students acquired a fairly satisfactory knowledge of the subject as evidenced by a written examination. Most of the others were able to answer basic questions when re-examined orally and were allowed to pass. A few, however, responded so

Dr. Scott is professor of epidemiology and medical statistics, and Mrs. Brenkus is research assistant in the department of preventive medicine and public health, University of Texas School of Medicine at Galveston.

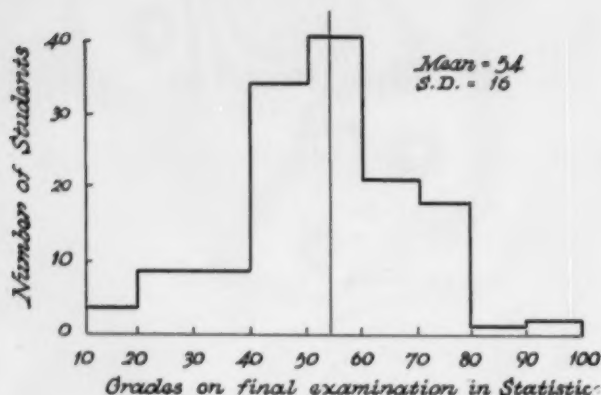


FIGURE 1—The distribution of grades on a final examination in medical statistics shown for the entire class.

inadequately that they were required to do additional work and were given another examination. In almost every case this latter group of students finally did almost as well as the average of the class, indicating that they originally went through the routine of solving problems without much attention to the meaning.

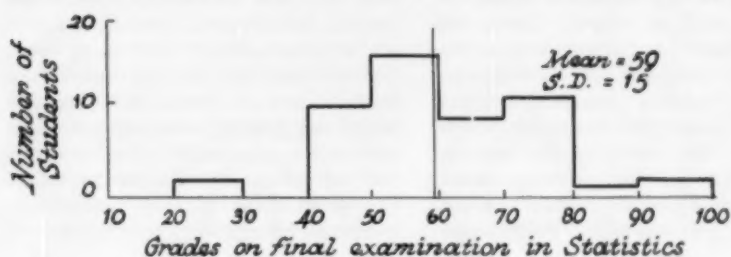
In light of this background we can better evaluate the results of the examinations this year. Since it was expected that the students would gain facility to solve statistical problems more or less in proportion to their mathematical ability, the examination was designed to measure a wide spread of ability. It was of the open-book type, was limited to two hours and consisted of four questions of increasing difficulty representing practical problems taken from current medical articles. The following statement was printed on the examination paper: "This examination will be graded primarily on quality of answers, secondarily on how many questions are completed, therefore more weight will be given to relatively complete answers to a few questions than to partial answers to all." Each

of the four questions was weighted equally on a total score of 100. It was expected that a grade of 50 would represent entirely satisfactory ability to interpret most of the statistical statements found in the current medical literature. The results appear to bear out this expectation. The distribution of grades for the entire class is shown in Figure 1.

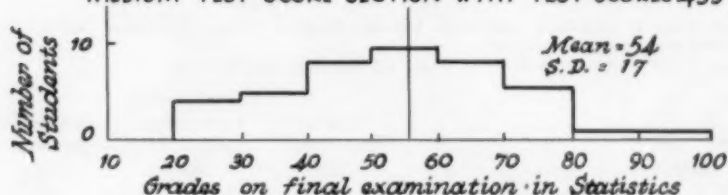
Aside from a few exceptions to the general pattern, the average achievement of the different sections was proportional to their test scores (Figure 2). Testing the differences between the mean grades of three sections for statistical significance showed that the difference between the section with highest scores and that with the lowest scores was highly significant at the 0.1 per cent level. The difference between the high and middle sections was not significant ( $P = .09$ ), whereas that between the middle and the low section was barely significant at the 5 per cent level.

Two factors could have been involved in the different levels of achievement of the three sections: (1) the type of instruction and (2) the ability of the students. The in-

## HIGH TEST SCORE SECTION WITH TEST SCORES 535 TO 725



## MEDIUM TEST SCORE SECTION WITH TEST SCORES 455 TO 535



## LOW TEST SCORE SECTION WITH TEST SCORES 240 TO 455

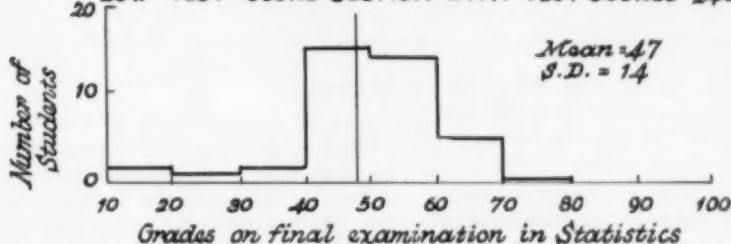


FIGURE 2—The distribution of grades on a final examination in medical statistics for three sections of the class divided on the basis of their scores on the quantitative ability portion of the Medical College Admission Test.

struction of the high section emphasized the type of reasoning necessary for solving the more difficult problems. In the low section the same material was discussed but emphasis was placed on the more simple fundamental concepts. More important, however, is that the section with high scores was better able to understand

the more advanced type instruction.

The question has been raised as to whether the quantitative ability score of the MCAT reflects a specific type of ability. To throw some light on this point the average grade for all courses (other than statistics) taken in the same semester was calculated for each student and the mean of these values

## MCAT Scores as a Teaching Aid

obtained for each section. There were no significant differences between the sections in this respect. Since the same sections were alternating in the laboratory part of the bacteriology course during this semester, it is interesting to compare the mean grades of the different sections. The section with high and low quantitative ability scores had equal means but the middle section was significantly high-

was correlated with statistics grades and with the average grade for all courses (exclusive of statistics) taken in the same semester. Although these results may have several interesting implications, it seems futile to attempt any general interpretation from such a small sample. The program will continue, and the accumulation of results over several years may warrant more general conclusions.

**Table 1**

Product moment correlation coefficients between Medical College Admission Test scores and sophomore class grades.

\* = significant at the 5% level. \*\* = highly significant at the 1% level.

Aptitude tests	Statistics Examination	Class Grades	
		Bacteriology Laboratory	Semester <sup>†</sup> Average
Quantitative Ability .....	.235**	.024	.127
Verbal Ability .....	.193*	-.132	.102
Modern Society .....	.149	.094	.190*
Premedical Science .....	.302**	.135	.270**

<sup>†</sup> Average of all courses, not including statistics.

er. That this latter difference can be interpreted as a chance occurrence is borne out by the correlation coefficients mentioned below.

A further point of interest is a comparison of these various measures of achievement with the scores of the students on the other portions of the MCAT. This comparison is shown in Table 1 by product moment correlation coefficients between the test scores and the grades for the entire class of 139 students irrespective of the sectioning. As expected from the results presented above, the correlation between quantitative ability scores and grades on the statistics examination was highly significant. The only other test showing highly significant correlation with any grades was the premedical science test which

## Summary

One of the problems of teaching a required course in medical statistics has been widely varying mathematical ability of the students. Division of the class into sections on the basis of the score attained on the quantitative ability portion of the Medical College Admission Test has been greatly advantageous. Although the same laboratory problems have been presented to the three sections with different test score levels, the emphasis in the instruction has been varied in the different sections to correspond to the average level of ability. The success of this program has been most markedly reflected in the attitude of the students.

Achievement in the course, as measured by a final examination, was

correlated with the test scores to a statistically significant degree. That this correlation is associated with a specific type of ability is shown by the lack of correlation between the scores on the quantitative ability test and the grades obtained in other courses. No significant correlation was found between scores on other parts of the test and grades attained, except a correlation between the pre-

medical science achievement score with the statistics grades and with the average grade in all other courses taken in the same semester. It would appear that the latter test measures a more general type of ability than the quantitative test does, but such general conclusions will be on a sounder basis after several years of experience and evaluation of this program.

#### NEW DIRECTORY PUBLISHED

The 1954 edition of the Association of American Medical Colleges *Directory* was published and a limited number of copies distributed to institutional and individual members last month. This is the third annual edition of the *Directory*.

The new edition has been expanded in both size and scope. In addition to listings of institutional and affiliate institutional members and their administrative officers, it also contains names of department chairmen in 13 subject fields. The new lists are arranged alphabetically by schools within each subject field. As in the past, the *Directory* carries an alphabetical list of all persons included in medical school administrative positions and as AAMC officers and committee members.

Five copies have been sent to each institutional member school. Additional copies may be obtained by schools or individuals from the Association headquarters office, 185 N. Wabash Ave., Chicago 1, Ill., for 50 cents per single copy postpaid. A special price will be made for 10 or more copies ordered at one time for delivery to a single address.

## Editorials and Comments

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### The VA's Time of Decision Is Now

THE MEDICAL SCHOOLS of the country have developed a tremendous stake in the 85 Veterans Administration hospitals in which they have established a Dean's Committee relationship since World War II.

This relationship has been advantageous to all concerned; it has helped the VA attract much better qualified medical men and thereby raised the standard of medical care provided; it has made increased numbers of teaching beds and well qualified clinicians in charge of those beds available to neighboring medical schools, and thus has strengthened their teaching program.

Two important facts, however, have given the medical schools reason to pause and take stock of this cooperative venture. The first fact is that new VA hospitals have been and still are being built at an alarming rate. There were 71 in 1934, there will be 174 of them by June of this year. This year's addition alone consists of 11 hospitals. The second fact is that though those setting up the original legislation intended that VA hospitals should be primarily for the care of those wounded or made ill in the service of their country, at least 52 per cent<sup>1</sup> of the present patient load in our VA hospitals consists of veterans whose ailments are completely unconnected with war or military service, and approximately 85 per cent of a typical year's admissions are for nonservice-connected disabilities.<sup>2</sup>

For these latter facts, VA officials blame Congress and loose legislation governing VA hospital admission. The Congress in turn has assumed that because the spokesmen of the American Legion, the Veterans of Foreign Wars, the Disabled American Veterans, and the American Veterans of World War II, favored free care of veterans for civilian (nonservice-connected) disability that they were speaking for the 20,200,000 ex-service men. That these organizations do not in fact fairly represent the thinking of our ex-service men in this matter is shown by a poll of veterans carried out in 48 states by George Gallup and the American Institute of Public Opinion. As recently reported,<sup>3</sup> 52 per cent of the veterans polled were opposed to free care of veterans suffering from civilian illnesses.

It is obvious that unless the present inordinate growth of VA hospitals is stopped and veterans with nonservice-connected disabilities excluded from care except in cases of thoroughly investigated and proven cases of indigency, the country will be taken down the road to government medicine via the VA route just as certainly as if it followed the national compulsory medical care insurance route. Our medical schools do not want to see this occur, much less give it their assistance and blessing.

The VA, therefore, stands at the fork of the road. New regulations are going into force relating to the admission of veterans with nonservice-connected disabilities. In making his application for admission the veteran



must henceforth list his assets as well as his liabilities. The medical schools will be vigilantly watching how this new regulation is made to work. If it is made to work well, the future of the relationship between the VA and the medical schools looks bright. If the new regulation is not honored and not followed up, the outlook is dark indeed. It is for the VA to make its decision.—D.F.S.

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## Important Suggestions From The Department of Defense

### Matching for Military Service

To the Editor:

At the recent meeting in Chicago of the Association of American Medical Colleges and the Council on Medical Education and Hospitals of the American Medical Association, I presented a plan under consideration to take effect June 30, 1955, at the expiration of the Doctors' Draft Law (P. L. 84, 83rd Congress). It was based on the assumption that the law would not be continued, but that after July 1, 1955, all doctors would come under the regular draft as regular registrants.

The plan presented was based upon the matching plan for internships which has met with success over the past three years. A letter was sent to the deans of the various medical schools in the first week in January, asking for a test run among the non-veteran fourth-year students, the regular registrant group. The questions asked of each student were: "first, if given a free choice, which service do you prefer; second, do you prefer your service immediately following internship, after internship plus one year of hospital training; third, after full residency training?"

It was pointed out that various factors might enter into their decision: finances, loans, marital status, desire to obtain their training either before or after military service, and the simple desire to get this service behind them as soon as possible.

Replies were as follows:

#### AS TO SERVICE PREFERENCE

Army—27 per cent  
Navy—37 per cent  
Air Force—36 per cent

#### AS TO TRAINING

Immediately following internship—39 per cent  
After two years of hospital training—15 per cent  
After full residency training—46 per cent

Following presentation of these results at the Chicago meeting, inquiries were made as to whether it would be possible to put this plan into effect with the 1954 graduating classes that will finish internship June 30, 1955. The plan had previously been explained to the National Advisory Committee (Rusk committee), and to General Hershey and Selective Service, who expressed equal interest in it; therefore, after

a conference with Col. Richard Eanes, in charge of the Medical Section of Selective Service, and our own staff, it was decided to attempt to place the plan in operation this spring.

The proper cards are now being designed and printed and it is hoped that in the late spring these will be available to the medical and dental schools for completion by each individual fourth-year student. Obviously, it is very much in the interest of each student to fill out a card; otherwise, it seems to us that it must be assumed that those who do not cooperate in this matter are not interested in when they receive their service or in which branch. Like any plan, its success depends on the cooperation of all involved, which in this instance is the students themselves, the medical and dental schools, Selective Service and the Department of Defense.

FRANK B. BERRY,  
*Assistant Secretary of Defense.*

### **Calls to Active Duty**

*To the Editor:*

It has been recommended by the National Advisory Committee to the Selective Service System that after July 1, 1955, "all those physicians with obligations for military service obtain commissions during their internships and that the Department of Defense then request delay in call to active duty for those for whom they recommend additional training."

The Selective Service System will give consideration to such a plan and will cooperate in recommending to it local boards concerning the advisability of deferment in such individual cases. We hope that this, together with the "matching plan" being formulated by this office in

conjunction with Selective Service System, will provide a plan whereby our present postgraduate educational standards will be upheld and our hospitals as well as the three military services will gain added benefits and protection.

It seems probable that for the year July 1, 1954 to June 30, 1955, it will be necessary to call all hospital interns and residents with an obligation for military service as replacements for those officers who are being released from the services. There is a certain backlog, however, particularly during the first half of the year, of men from the class of 1953 who have not been called, together with a small number of the Priority I group. In justice to the group of interns finishing this year, we trust that the hospitals throughout the country will extend their capabilities to handle this group on a short-term basis. The three services are trying to estimate their needs and it is possible that they may be able to furnish an approximate time schedule. Vacancies in the Navy and Air Force will outnumber those in the Army, at least from July to December.

All men finishing their internships this June, therefore, who desire service with the Navy or Air Force, should apply for commissions so that the necessary processing may be effectuated and so that they may be ordered to active duty without delay.

For those for whom a delay in call will be inevitable, we should like to request that the hospitals of this country make a special effort to place them on a temporary basis so that these young men may have a means of livelihood and also the opportunity to continue their education, as well as to contribute to the needs of the hospitals of this nation.

FRANK B. BERRY,  
*Assistant Secretary of Defense.*

# NEWS DIGEST

## **National Health Forum**

The 1954 National Health Forum, was held at the Hotel Statler, New York, as part of the 34th annual meeting of the National Health Council, March 24-26. The program focused around "Changing Factors in Staffing America's Health Services."

Dr. Franklin D. Murphy, chancellor of the University of Kansas, spoke at the dinner which closed the forum on March 25. As dean of the university school of medicine before he took his present position in 1951, Dr. Murphy instituted the "Kansas Rural Health Plan." This plan is three-fold, involving expansion of the medical school's facilities to permit an increased enrollment, help to doctorless communities in planning a "medical workshop" to attract a practi-

tioner, and making postgraduate courses more readily available to all doctors in the state.

The forum, through group discussion, gave special consideration to the growing emphasis on rehabilitation, changing military requirements, increase in the number and variety of occupational health programs, and greater importance of vocational counselling.

## **Pan American Medical Association**

Five hundred doctors have returned from a medical good-will mission that took them to six Latin American countries for a series of medical meetings and good-will conferences.

The doctors, members of the Pan American Medical Association, were

## **NOMINATIONS FOR THE 1954 BORDEN AWARD**

Dr. Ashley Weech, chairman of the AAMC's Committee on the Borden Award, announces that nominations for the 1954 Award are now open and will remain open until August 1, 1954. The Award, presented each year since 1947, is made for outstanding research in medicine conducted by a member of the faculty of a member or affiliate member medical school and published in the preceding five-year period.

The Award consists of \$1,000 and an inscribed gold medal. Only one award is made in any one year. If two or more persons have collaborated in the research project selected, the Award will be presented to the group and replicas of the medal given to each collaborator. Nominations may be made by any faculty member.

To make a nomination, five copies of the following materials should be submitted: (1) a letter setting forth the basis for the nomination, (2) a statement of the nominee's academic history and scientific accomplishments, (3) reprints reporting on the most significant of the nominee's research studies.

All nominations with supporting materials must be in the hands of Dr. Dean F. Smiley, secretary, Association of American Medical Colleges, 185 North Wabash Ave., Chicago 1, Ill., not later than August 1, 1954, in order that they may be distributed to, and evaluated by the committee and the winner selected by the time of the 65th Annual Meeting, October 17-20, 1954.

the guests of their medical colleagues in Caracas, St. Thomas, San Juan, Ciudad Trujillo and Havana, and were welcomed at state receptions by the presidents of Cuba, Venezuela and the Dominican Republic and the governors of Puerto Rico and the Virgin Islands. The meetings were marked by a two-way exchange of the latest developments in clinical and laboratory research.

### **HIF Cost Survey**

The Health Information Foundation, New York, recently made public the first national consumer survey of medical costs in 20 years. The survey was sponsored by the drug industry through the foundation, a nonprofit organization supported by 165 drug, pharmaceutical, chemical and allied companies.

Person-to-person interviews were conducted for the foundation by the National Opinion Research Center of the University of Chicago, documenting the medical expenses of 8,846 individuals during the previous 12 months.

According to the report, a total of 58 per cent of the population, or 89,500,000 people, now have some type of health insurance. Some type of hospital insurance is held by 57 per cent of the population.

The survey also found that medical expenses of 7 per cent of the nation's families totaled from 20 to 100 per cent of their income or more. Eight million families or 16 per cent of all families in the nation had medical debts as of July 1953 totalling \$1,100,000,000. Of this amount, families owe financial institutions and individuals \$200 million. This means that a total of \$900 million is owed by families directly to hospitals, doctors, dentists and for other medical services.

### **Medical Library Association**

The Medical Library Association will hold its 53rd annual meeting June 15-18, 1954, in Washington, D. C. Headquarters will be the Hotel Statler, and the official host the

Armed Forces Medical Library.

The program will include a discussion on medical research by embassy attaches, tours of the National Institutes of Health, the National Naval Medical Center and of the Armed Forces Medical Library.

Further information can be obtained from Lt. Col. Frank B. Rogers, Armed Forces Medical Library, 7th St. and Independence Ave., S.W., Washington, D. C.

### **Another in Medicine TV Series**

"Overweight," another in the March of Medicine television series, was shown over the NBC-TV network on Thursday, March 11. This program was presented by Smith, Kline and French Laboratories in conjunction with the American Medical Association.

A portion of the program was devoted to "The Training of a Doctor," and was under the direction of Dr. Vernon Lippard, dean of Yale University School of Medicine and president-elect of the Association of American Medical Colleges.

### **Medical Art Exhibit**

A unique collection of medical art by such masters as Rembrandt, Goya, Daumier, Vesalius, Toulouse-Lautrec and others will be shown at medical colleges and hospitals across the country during a tour launched recently by Smith, Kline and French Laboratories.

The collection, entitled "Ars Medica," is composed of 85 prints depicting the practice of medicine over the centuries, and was assembled by the Philadelphia Museum of Art.

### **Accredited Hospital List**

The Joint Commission on Accreditation of Hospitals has released its annual list of fully and provisionally accredited hospitals in the United States, its possessions and Canada. Full accreditation was given to 2,920 hospitals and provisional accreditation to 498, a total of 3,418. There are about 7,500 hospitals.

This year's list is the first one published by the joint commission since it took over the actual hospital survey work from the American College of Surgeons on January 1, 1953. The commission, under the direction of Dr. Edwin L. Crosby, is supported by the American College of Physicians, the American College of Surgeons, the American Hospital Association, the American Medical Association and the Canadian Medical Association.

Before a hospital is surveyed, the hospital itself must request such action. Dr. Crosby pointed out that it had not been possible to visit all hospitals which requested accreditation during the year. Full accreditation means that a hospital meets the required standards of the commission. Provisional accreditation means that the hospital fell just short. Such hospitals are resurveyed within one year to determine if they have corrected the deficiencies shown in the original survey.

#### **Foreign Operations Appointments**

Dr. Frank Robert Freckleton, formerly a Public Health Service official with the Indian Affairs office, Window Rock, Ariz., is to join the U. S. Operations Mission at Djakarta, Indonesia.

Dr. Edward Kupka, formerly tuberculosis control chief of the California Department of Public Health, will join the U. S. Operations Mission in Hanoi, Vietnam, Indochina.

Dr. Joseph E. Alicata, a parasitologist and medical entomologist, will serve with the Central Laboratory, at Amman, Jordan, and Dr. Arthur Clayton Curtis, formerly director of the division of tuberculosis control, Arkansas Board of Health, will join the U. S. Operations Mission in Ethiopia.

#### **Industry-College Conference**

"The Mutuality of Education and Business" was the theme of a two-day conference held recently at the Greenbrier Hotel, White Sulphur Springs, W. Va., at which 70 presi-

dents, half from industry and half from education, met for six small work group sessions.

The objective of the conference was to evaluate existing programs of co-operative endeavor between industry and education, and to consider ways of working together to further advantage. The meeting was planned by Robert R. Young, chairman of the board, Chesapeake and Ohio Railroad, and Dr. Milton S. Eisenhower, president, Pennsylvania University. Dr. Henry T. Heald, chancellor of New York University, and Adm. Ben Moreell, chairman, Jones & Laughlin Steel Corp., served as co-chairmen.

#### **New HIF President**

George Bugbee, executive director of the American Hospital Association since 1943, has accepted the position of president of the Health Information Foundation, effective May 1. He succeeds the late Adm. W. H. P. Blandy, who died January 12.

#### **Medical Deans, Advisors Meet**

A conference of deans of medical sciences and premedical advisors, sponsored by the Western Interstate Commission for Higher Education, was held at Albuquerque, N. M., recently.

Representatives of the medical, dental, veterinary medicine and public health schools of the west discussed the contract program of the commission in the health sciences and investigated the further possibilities of regional cooperation in the west.

Among the topics discussed were "The Future of Medical Sciences in the West," "Problems of Premedical Advising" and "Possible Areas of Interstate Cooperation in the Medical Sciences."

#### **Commission on Finance Reports**

A broad program for strengthening and extending voluntary prepayment and for keeping the costs of hospital services as low as possible consistent with good standards of care was rec-



commended in the recently published summary report of the Commission on Financing Hospital Care. The commission study, made over a two-year period, was undertaken to (1) determine the costs of providing adequate hospital services and (2) find the best systems of payment for such services.

The commission found that voluntary prepayment is an "effective method of financing community hospital services" which "greatly eases the burden of financing hospital care by making it possible to meet the cost through advance periodic payments of known amounts." Prepayment, according to the report, reduces significantly the number of persons unable to pay for care when they are ill and the number who would be dependent on the community for financial assistance.

The commission also found that the "financial stability of the voluntary hospital system is dependent upon the degree to which voluntary prepayment enables both the general public and the hospitals to meet their common problem of financing hospital care."

Among the commission's recommendations to keep prepayment costs low were:

- Elimination of unnecessary admissions to hospitals and reduction of unnecessary use of hospital beds prior to active treatment.

- Prompt discharge of patients after medical need no longer exists.

- Curtailement of unnecessary use of hospital beds for diagnostic and other services which can be given on an ambulatory basis.

**Extension of protection:** Pointing out that a substantial increase in unemployment would create serious financial problems for the patient and the hospital, the commission recommended several methods for extending voluntary prepaid insurance into periods of unemployment. It felt that this could be done by voluntary action with prepayment plan and employer cooperation. As one approach, the commission suggested inclusion of voluntary prepayment costs in the

unemployment compensation program.

Two major recommendations were proposed by the commission for aged retired persons and the permanently disabled, groups which need more hospital care than others and are less able to pay for it. These were (1) provision by employers for coverage of retired employees under voluntary prepayment plans as part of their pension programs, and (2) inclusion of a provision in the social security program for hospital protection of persons receiving monthly benefits.

For groups receiving public relief, the commission proposed federal grants to the states and localities for a limited period of time to encourage assumption of state and local responsibility. The commission emphasized its belief that these groups can be brought under voluntary prepayment.

The commission recommended the broadest possible pooling of risks and costs on a communitywide basis to maintain as nearly uniform rates as possible in order to achieve maximum population coverage, including protection for those groups often not covered.

**Rising costs:** The commission reported that inflation, population growth and increased admissions were important reasons for rises in total hospital operating expenditures. If the value of the dollar had remained unchanged from 1935 to 1952, the increase in total expenditures of all nonfederal general hospitals would have been 199 per cent. If population had remained constant, the increase in total expenditures after adjustment for inflation would have been 148 per cent. Although hospital expenditures increased 199 per cent after adjustment for inflation, the concurrent increase in the total number of admissions means that costs per admission rose only 20 per cent.

The recommendations of the commission pointed out that many communities need more hospital beds but cautioned against overbuilding hospital facilities. The commission urged effective integration of services among



community hospitals to avoid duplication, and suggested that "before making capital expenditures for construction and equipment the hospital should carefully determine the needs of the community and its ability to finance the maintenance costs. Overbuilding with attendant failure to make full use of bed capacity and diagnostic and therapeutic facilities should be avoided."

It was suggested in the report that some of the need for inpatient care might be removed by encouragement of early outpatient treatment and that "prepaid benefit provisions for outpatient services as well as inpatient services will reduce the present demand for unnecessary inpatient care." The need for increased numbers of trained hospital administrative personnel also was stressed.

In another of its recommendations, the commission suggested that hospital trustees, administrators and medical staffs "join in efforts to pro-

mote early referral of patients to special facilities for the care of chronic illness, convalescence, rehabilitation or to home-care programs." These long-term care programs should be established by general and special hospitals or by other community groups and integrated with hospitals, according to the commission.

The Commission on Financing Hospital Care was established in late 1951, under sponsorship of the American Hospital Association. It functioned as an independent nongovernmental agency and was financed by grants from the Blue Cross Commission, Health Information Foundation, John Hancock Mutual Life Insurance Company, W. K. Kellogg Foundation, Michigan Medical Service, Milbank Memorial Fund, National Foundation for Infantile Paralysis and Rockefeller Foundation.

The commission studies are being prepared for publication this spring and early summer.

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## College Briefs

### **Albany**

A new laboratory for the use of radioactive isotopes in the diagnosis and treatment of disease and in cancer research is now in operation. Dr. ROBERT WADLUND, who recently completed special studies at Oak Ridge, Tenn., is the director. The Atomic Energy Commission has authorized the use of radioactive iodine, phosphorus and gold for the treatment of disease, and plans are under way to use radioisotopes in the near future for evaluation of patients for surgery and for diagnosis of brain tumors.

### **Univ. of California**

A metabolic laboratory for the school of medicine's service at the San Francisco City and County Hospital will be constructed soon with

funds contributed by the Max C. Fleischman Foundation of Nevada, the San Francisco Heart Association and the Gardiner Fund. The laboratory will be used primarily for the study of poorly understood problems of body chemistry involved in heart disease.

### **Univ. of Chicago**

Dr. M. EDWARD DAVIS, a member of the University of Chicago Lying-in Hospital medical staff for 29 years, has been named chief of staff. He succeeds Dr. WILLIAM J. DIECKMANN, chairman of the department of obstetrics and gynecology. Dr. Dieckmann resigned his administrative post to devote full time to clinical activities and research as the Mary Campau Ryerson professor of obstetrics and gynecology.

### **Columbia**

Dr. LAWRENCE C. KOLB has been appointed director of the New York State Psychiatric Institute and professor of psychiatry at the College of Physicians and Surgeons.

### **Dalhousie**

Dr. CLARENCE GOSSE has been named professor and head of the department of urology, and Dr. WALLACE M. ROY has been appointed professor and head of the department of radiology.

### **Cornell**

Dr. E. HUGH LUCKEY has been appointed dean of the medical college, effective July 1. Dr. Luckey has been affiliated with the medical college since 1944 and has directed the Cornell Medical Division of Bellevue Hospital Center since 1950.

The fifth dean of the medical unit since its creation in 1898, he succeeds Dr. JOSEPH C. HINSEY, who became director of the New York Hospital-Cornell Medical Center last July. Dr. DAYTON J. EDWARDS, secretary of the medical faculty, has been acting dean.

### **Duke**

Dr. BARNES WOODHALL and Dr. GUY L. ODOM, neurosurgeons, have just been named president and program chairman, respectively, of the Southern Neurosurgical Society. The society comprises about one-fourth of the nation's brain surgeons.

### **George Washington**

Dr. JOSEPH HYRAM ROE, professor of biochemistry and head of the department, is the recipient of the 1953 George Washington Medical Society's annual award for distinguished and meritorious service in the field of medicine or allied sciences.

In presenting the award, emphasis was placed on Dr. Roe's role as a researcher in developing at least seven biochemical methods which are in common clinical usage today. These include methods for determining the presence of Vitamin C, fructose

(studies of sugar metabolism) insulin, serum amylase, lipase, calcium and dextran.

### **Emory**

Dr. CARL C. PFEIFFER has been appointed professor and chairman of pharmacology. He was formerly head of the pharmacology department at the University of Illinois College of Medicine. Dr. JAMES A. BAIN, also from the Illinois faculty, has been named professor of pharmacology. Dr. DONALD S. MARTIN, formerly dean of the University of Puerto Rico, will serve as associate professor of bacteriology on a voluntary basis.

### **Jefferson Medical College**

A cardiovascular teaching grant of \$25,000 from the Public Health Service has been received by the department of medicine. The department of medicine and obstetrics has set up a jointly sponsored cardiac clinic where medical students are given instruction in prenatal care and cardiac disease associated with pregnancy.

A special engraved plaque was presented recently to Dr. JOHN H. GIBSON JR., professor of surgery and director of surgical research, by the board of governors of the Pennsylvania Heart Association for his "contributions to heart research through the development of the artificial heart-lung machine." The award was presented at ceremonies officially opening the Engine of Life exhibit at the Franklin Institute, Philadelphia.

### **Illinois**

One hundred and twenty-five grants, totalling \$694,814 were received by the college of medicine during the past 12 months in support of research and teaching programs in the health sciences. The Public Health Service contributed 35 grants, the largest number received from any one agency.

The National Foundation for Infantile Paralysis has made an additional payment of \$36,000 for the newly-established regional respira-

tory center at the Research and Educational Hospitals. The respiratory center provides a program of total care of the patient with respiratory problems resulting from poliomyelitis. Present facilities include a 16-bed unit for the care of respiratory patients and a laboratory for conducting special studies.

### **Kansas**

DR. DAVID S. RUHE, director of the Medical Audio-Visual Institute of the Association of American Medical Colleges from February 1949 to January 1954, joined the staff of the university medical center March 1 as director of audio-visual education and associate professor of preventive medicine and public health.

Dr. Ruhe received his M.D. from Temple University. He also has served as audiovisual educator in preventive medicine for the Public Health Service at the Communicable Disease Center, Atlanta, Ga.

Part of his new responsibility will be direction of the expanding use of color TV in medical education at the School of Medicine and in the affiliated Veterans' Administration hospital in Kansas City.

### **N.Y.U.—Bellevue**

The Lillia Babbitt Hyde Foundation presented a check for \$20,000 to Dr. CHARLES F. WILKINSON JR., professor and chairman of the department of medicine, Post-Graduate Medical School. Research will cover studies of sitosterol, its effect on the blood cholesterol and atherosclerosis, and a further preliminary study of nitrogen metabolism.

The following item appeared incorrectly last month under the headline "State U. of N. Y., Bellevue." It should have appeared under the heading shown above.



A March of Dimes grant of \$25,666 will enable the medical center to continue its reference center for information on appliances for the rehabilitation of handicapped persons.

Dr. JOHN HUGH MULHOLLAND, professor of surgery, has been appointed chairman of the surgery study section of the division of research grants, National Institutes of Health, Public Health Service.

### **Missouri**

Two new departments in the School of Medicine have been approved by the executive board of the board of curators. The department of obstetrics and gynecology, headed by Dr. CLARENCE D. DAVIS of Duke University School of Medicine, will be established July 1, 1954. The department of pediatrics, with Dr. ROBERT L. JACKSON, formerly of the State University of Iowa, as professor and chairman, will be established on September 1, 1954.

### **Tennessee**

Dr. SAM H. SANDERS JR. has been appointed head of the department of otology, laryngology and rhinology at the college of medicine, succeeding Dr. CHARLES BLASSINGAME. Dr. Blassingame will continue as professor in the department. Dr. Sanders is a former president and director of the International Society of Eye, Ear, Nose and Throat.

### **Pennsylvania**

The new Thomas Sovereign Gates Memorial Pavilion of the Philadelphia Medical Center was dedicated at a formal opening recently, coinciding with the opening of the university's diagnostic clinic.

Essentially, the Gates Pavilion is a new outpatient building of university hospital. Named after a former president and chairman of the university who died in 1948, the building includes clinics and laboratories.

The diagnostic clinic was organized solely for the purpose of diagnosis of

private patients who must be referred to the clinic by their family physicians. Functioning of the clinic is geared for the completion of all tests and consultations within a period of three or four days, at which time the physician is furnished a complete report together with recommendations for further care of the patient.

### **Southern California**

Dr. THOMAS H. BREM, chief of the medical service of the Long Beach Veterans Administration hospital for the past five years, has been named director of clinical teaching and professor of medicine at the school of medicine. Dr. Brem will be in charge of the instruction of all students in the medical school who are on clinical assignments in the Los Angeles County Hospital. In addition, he will assist in the teaching of interns and residents who are assigned to university medical services in the hospital.

### **Tulane**

A \$45,000 grant has been awarded by the Edward G. Schlieder Educational Foundation for research in the

university's biological and physics program. The grant will support and extend the scope of the present program at Tulane, which involves the application of radioactive materials to clinical research and to the treatment of certain diseases, including tumors, cancers, thyroid disorders and high blood pressure. Touro Infirmary, the Ochsner Medical Foundation and Charity Hospital, all in New Orleans, are cooperating in the clinical aspect of the program.

Dr. ERNEST CARROLL FAUST, the William Vincent professor of tropical diseases and hygiene, is one of seven medical clinicians and specialists in the United States invited by the West German Republic to study public health problems and services there.

### **Yale**

Dr. HENRY P. TREFFERS, professor of microbiology and chairman of the department at the school of medicine, has received a Fulbright fellowship to do research at the University of Otago Medical School in Dunedin, New Zealand, during the 1954-55 academic year. He plans to use his grant to write a book on drug resistance to micro-organisms.

# Audiovisual News

## Audiovisual Kits

The Division of Graduate and Post-graduate Medical Education, University of Utah College of Medicine, and the Utah State Medical Association have made available to physicians in Utah four Audiovisual Seminar Kits.

Sent on request for the cost of the return motor freight, each kit contains a medical discussion on long-play (33 1/2 rpm) records, suitable illustrations and color photographs on 35 mm. slides, and a table-top slide viewer. All the physician needs is a record player to bring this lecture to his home or office.

The first four kits are "The Reliability of Radiological Diagnosis," "Radiological Examination of the Chest," "Lesions of the Cervix and Vulva" and "The Role of the Blood Smear in Hematologic Diagnosis."

These kits will be available generally in the near future, and Kit No. 2, "Radiological Examination of the Chest," will be presented on the audiovisual preview circuits of the Association of American Medical Colleges.

## Summaries of Film Reviews

### The Scabies Mite

7 min., sd., b&w., 16 mm., 1943

The mature female of *Sarcoptes scabiei* is shown alive and in diagram. Mites on skin and clothing demonstrate locomotion, and skin penetration is shown. With magnifying glass and needle a doctor digs out a mite and eggs from a burrow; the burrow is seen in tissue section. Hatching and walking of a larva precede a diagrammatic summary of the 10-14 day life cycle. Statistics on the sites of burrows in patients are illustrated in one patient who demonstrates peri-axillary burrows with demonstrable vesicles.

This condensation from the longer film, "Scabies," contains the essential elements of the mite life cycle, along with minimal pathology. Simple, direct and factual, the cinemicrography highlights the workmanlike overall visual and auditory message.

This enormously condensed version of a classic scientific film will answer certain needs of teachers of parasitology and dermatology for a brief and highly concentrated visual illustration of *Sarcoptes scabiei* infections. The film is well adapted for integration into classroom presentations. Students will find the film illuminating and exciting as far as it seeks to go.—D.S.R., 1954.

**Audience:** Students of biology (parasitology) and dermatology.

**Production Data:** **Sponsor:** Ministry of Health; **Producer:** Ministry of Information, London; **Script and Direction:** Robin Caruthers; **Camera:** H. N. Edwell; **Cinemicrography:** Frank A. Goodliffe.

**Distribution:** British Information Services, 30 Rockefeller Plaza, New York 20, N.Y., **Sale:** \$32.50, and **Loan.**

\*"Scabies," British Information Services.

### Target U.S.A.

21 min., sd., color, 16 mm., 1951

After an introduction showing peaceful and complacent America, Hanson W. Baldwin warns that "we can be attacked on our own ground." The rationale of enemy atomic attack upon critical targets in state X is explained, emphasizing the impossibility of complete defense against air fleets, with nine out of 12 planes likely to reach their targets. In a typical industry a management group chooses a plant defense coordinator, who selects and trains personnel for emergency communication, fire control and first aid and prepares the plant physically for emergency status. In a threatened attack, the plant springs into action through its trained reflexes, evacuating its personnel to its prepared shelters, then moving back to production after the explosion.

This color film, featuring the military editor of the New York Times and a realistic buildup of the tensions of atomic attack, comprises both motivation toward



preparedness and orientation to the general principles of civil defense as applied to an industry. Baldwin proves an apt choice as expert commentator; the film is produced with skill, although several hasty transitions upset the pace at critical points; and one might question in a small voice the use of the Biblical quotes and the somewhat obtrusive use of brand labels such as Homelite and Vaseline.

For all lay or professional audiences the film will provide both general information on civil defense planning and a feeling of the need for individual participation. For medical audiences, the panic potential and the medical enormity of atomic disaster are evocatively suggested, although clinical material is minimal.—D.S.R. and G.V.B., with MAVI Panel, January 1954.

**Audience:** Lay and civil defense groups.

**Production Data:** Producer: Cornell Productions, Inc., in association with Research Institute of America, Inc., New York; **Producer-Director-Writer:** Herman Boxer; **Score:** Ian Adomian; **Camera:** Albert Mossell; **Editor:** Edward Boughton.

**Distribution:** Cornell Film Co., 1501 Broadway, New York 18, N.Y.; **Sales:** Twyman Films, Inc., 400 West First St., Dayton 1, Ohio, and Oregon State System of High Education, general extension division, department of visual instruction, Corvallis, Ore.; **Rental:**

#### **Typhus in Naples**

11 min., sd., color, 16 mm., 1944 (Medicine in Action No. 2)

The wartorn city of Naples is seen upon the arrival of the American troops in 1942-43. It is partly destroyed by the retreating German army, disordered, the populace starving, crowded together, lousy. A few cases of epidemic typhus have occurred. An elderly man gravely ill with the "spotted fever" of typhus is seen: case history, temperature chart, systemic visible signs. Specific diagnosis by agglutination tests is demonstrated. The Army's six-point program to avert the impending epidemic is invoked. DDT dusting crews act to delouse the critically exposed segments of the population while the soldiers are vaccinated. Case statistics show that "for the first time in history a typhus epidemic was checked in midwinter."

This story of a threatened epidemic hamstrung by effective preventive action is a superficial patchwork film which nevertheless is impressive and telling. The setting of grim misfortune which depicts the lousy population, the violence of clinical louse-borne typhus, and the mass

delousing and vaccination are memorable, if too brief and fragmented. The film's continuity lies in its narration; the pieces of camera reporting edited together are of irregular quality and unfortunately lack completeness or real thought.

For all pertinent audiences, lay to professional, the impact of the great plague typhus contrives to produce some learning, for lice and history are here dramatically fused. With professional audiences, preparation before showing and amplification thereafter are essential to proper teaching of the full story of this epidemic and the historic disease it portrays.—D.S.R. with MAVI Panel, 1951.

**Audience:** Lay to professional groups.

**Reference:** Cranford-Benson, H.J., Naples Typhus Epidemic, 1942-43 (Entomologist's Review), *British Med. Jour.*, April 13, 1946.

**Production Data:** **Sponsor-Producer:** U. S. Navy, Bureau of Medicine and Surgery, Washington, D.C.

**Distribution:** Chief, Audio-Visual Training Aids Section, Professional Division, Bureau of Medicine and Surgery, U. S. Navy Department, 21st & E Streets, Washington 25, D.C.; **Loans:** (use Code No. MN 3726b); United World Films, Inc., 1445 Park Ave., New York 29, N.Y.; **Sales:** \$48.75.

#### **Emergency Blood Collection and Administration**

24 min., sd., b&w., 16 mm., 1953.

Simple equipment for blood collection is shown and the nature of arm vein selection illustrated. After checking the vacuum bottle, a donor set is used to draw blood from a male patient. Collection into test tubes of blood samples from the donor set is illustrated. All steps of the procedure are repeated on a woman patient. A third patient has a blood specimen drawn by syringe, and is then given an infusion through the same needle. Administration of 500 cc. of blood is demonstrated from a disposable vacuum bottle with plastic tubing and special clamp. The handling of blood in emergencies is summarized.

The film comprises four units: blood collection into vacuum bottles, venipuncture, infusion delivery and blood administration. One wonders how the infusion section fits into the apparent film purpose other than its generic relationship, or indeed what part an emergency has to do with the basic film content at all. However, for teaching the procedures shown, the film has no major deficiencies. Production is competently and proficiently carried through, directly and without pretension.

For teaching the four procedures to



technicians or medical students the film will perform its function, provided the predilections of individual teachers can be overcome. The film can be used readily in whole, in part, or repetitiously as may be required by various classroom demands.—*D.S.R., G.V.B. and C.C.M., February 1954.*

**Audience:** Medical technicians, nurses (infusion service staff in hospitals), medical students.

**Production Data:** **Sponsor:** New York State Department of Health, Office of Health Education, for the Office of Medical Defense; **Producers:** Film Counselors, Inc.; **Director-Writers:** John B. Kleinschmidt; **Technical Consultants:** John K. Miller, M.D., Elmer L. Hill, M.D., and Morris Schaefer.

**Distribution:** Health Film Library, N.Y. State Department of Health, 18 Dove St., Albany 10, N.Y., **Sale or Loan.**

### **Procedures in the Diagnosis of Cardiovascular Diseases**

32 min., sd., color, 16 mm., 1953.

A general practitioner, returning to his medical school, enters into a discussion of rheumatic fever cases with his former cardiologist chief. With a clinical group the cardiologist discusses a case of rheumatic mitral stenosis, pointing out auscultatory, ECG, phonocardiographic, vectorcardiographic, ballistocardiographic and fluoroscopic findings. The cardiologist discusses possible management of the case. Cardiac catheterization of the patient is demonstrated, and many procedures and measurements possible during catheterization are shown. A staff conference, with the cardiologist presiding, considers proper surgical steps for treatment of the patient.

This dramatized and superficial sweep across the broad topic of certain advances in the diagnosis of cardiovascular diseases is as accurate as is necessary for its purpose and probable audiences, although a number of scientific inconsistencies and procedural alterations might be suggested. With the exception of the opening sequence of the "general practitioner" (who is never seen again), the story structure is simple and sound, and permits the survey of CV methods which is the reason for the film. Parenthetically, to show so many observations on a single patient is a dramatic device, but not a realistic situation. Filmically, the subject matter is seriously overplayed, without the sense of dignified restraint and subtle authenticity which characterizes valid films about scientific progress. Casting problems, the intercutting of faces and things ostensibly for pace and interest but which is so often

interruptive of any intellectual process, and the too-rapid progressions of ideas all serve to reduce the impact and merit of the good color, sound, opticals and camera and the excellent inherent audiovisual forcefulness of the catheterization procedure.

Doctor audiences are very likely to be rebuffed by the film; out of their own feelings medical teachers will discover too many reasons why medical students should not see such a presentation. Other science students will find the film exciting but not factually informative beyond the single important impression that great advances have been made in this field of medicine. Selected lay groups such as men's service clubs or heart association fund-raising audiences would feel that "medicine is wonderful," but may also acquire some apprehensions because good results are not emphasized. Indiscriminate public showings should probably not be recommended, because potential patients or their families might well become dubious of what appear to be complex procedures.—*D.S.R., with MAVI Panel, January 1954.*

**Audience:** Selected lay public groups.

**Production Data:** **Sponsor:** University of Southern California, Los Angeles; **Scientific Advice:** George C. Griffith, M.D., and John A. Osborne, M.D., department of medicine (cardiology), School of Medicine, University of Southern California and Los Angeles County Hospital; **Producers:** Wilbur T. Blume; **Director and Writers:** Herbert Skoble, department of cinema.

**Distribution:** Audio-Visual Services, department of cinema, University of Southern California, 3518 University Ave., Los Angeles 7, Calif., **Sale or Loan.**

### **Perfused Living Animal (Dog) Preparation**

35 min., sd., color, 16 mm., 1948.

Diagrams and a small model show the methods of achieving systemic and pulmonary perfusions, employing a Hooker-Drinker oxygenator, Starling pump, respiration chamber and respiratory rhythm regulator. Tracheal cannulation permits connection with the air system. The heart is exposed and the phrenic nerves crushed. The operative steps for establishing and starting both systems are pictured with the proper blood pressure and respiration recording devices.

Seven experiments are performed and their effects observed with kymograph tracings of BP and respiration: (1.) adrenaline injected into systemic and pulmonary circulations, (2.) changes in systemic pump output, (3.) thoracic sympathetic nerve stimulation, (4.) negative pressure ventilation, (5.) cyclopropane anesthesia, (6.) caudal stimulation of the



## You can prevent attacks in angina pectoris

### *Effective protection*

Of all the drugs tested by Russek and co-workers<sup>1</sup> only Peritrate was found to exert a prolonged prophylactic effect in angina pectoris. In fact, their results in angina pectoris patients receiving Peritrate "... were comparable to those obtained with glyceryl trinitrate [nitroglycerin], but the duration of action was considerably more prolonged."

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Together with significant improvement in the EKG,<sup>1,2</sup> Peritrate prophylaxis will reduce the

nitroglycerin need in most angina pectoris patients.<sup>3</sup> A continuing schedule of only 1 or 2 tablets 4 times daily will usually

1. *reduce the number of attacks in almost 80 per cent of patients<sup>2,3</sup>*
2. *reduce the severity of attacks which cannot be prevented.*

Available in 10 mg. tablets in bottles of 100, 500 and 5000.

1. Russek, H. I.; Urbach, K. F.; Doerner, A. A., and Zohman, B. L.: J.A.M.A. 153:207 (Sept. 19) 1953.

2. Humphreys, P., et al.: Angiology 3:1 (Feb.) 1952.

3. Plotz, M.: New York State J. Med. 52:2012 (Aug. 15) 1952.

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cervical vagosympathetic nerve, and (7.) adrenalin after ergotoxin ethanesulfonate.

This detailed technical film is a good demonstration of a skilled and valid technique which permits a variety of physiological observations. The film is well photographed, the narration is descriptive and the procedures are filmed in fluid fashion, but the apparatus is seen in static and fragmented views.

The subject matter is specialized, requires adequate preparation of any class in physiology before its use, and will be maximally helpful in graduate physiology.—A.N., with MAVI Panels, October 1953.

**Audience:** Students of physiology.

**Production Data:** Sponsor and Producer: Imperial Chemical Industries, Ltd., London; **Scientific Authorship:** department of physiology, University of Edinburgh.

**Distribution:** Imperial Chemical Industries, Ltd., Film Library, 521 Fifth Ave., New York 17, N.Y., Loan.

#### **Aortic Valve Movements. Preliminary Study of Unfixed Post-Mortem Valves**

7 min., si., color, 16 mm., 1952

Opening titles and diagrams demonstrate the mechanics of simulated blood pressure, heart beat and cardiac output in freshly excised post mortem human hearts as produced in a closed system with a camera observation window over the aortic and pulmonic valves. Demonstrated in motion are: the normal aortic valve under normal pressure, seen also in slow motion; a valve with calcific plaques on its cusps; and the valve of a hypertensive patient under hypertensive pressures. Aortic stenosis is shown before and after cutting of the commissures. A bicuspid aortic valve (acquired lesion) is shown before and after division of the fused cusps. Normal pulmonary valves are shown for contrast with the range of aortic valves.

The experimental concept and method behind these camera observations is provocative, and raises many technical questions with other investigators. However, the film views of human aortic and pulmonic valves represent valuable and illuminating reconstructive documentation of valvular function in health, disease and after "surgery." The dynamic factor of the heart muscle is simulated, of course, and the observation window limits any vision of the myocardial elements of heart contractions, which may be meaningless in a dead heart in any event. There are no attempts at visual orientation, a fact which poses serious

problems for the student. Poor diagrams, titles and small imperfections typify the non-professional character of the film production, yet they do not greatly impede the message.

For students of cardiovascular physiology the film will be of the utmost interest in demonstrating the phenomena of aortic valvular function and dysfunction. Cardiologists and surgeons will find both the method and its results stimulating. Knowledgeable utilization by experts, with their own ad lib narration, is requisite to best presentation.—D.S.R., with MAVI Panel, January 1954.

**Audience:** Students of physiology and pathology.

**Reference:** McMillan, I.K.R., *British Heart Journal* 14, 42, 1942.

**Production Data:** Author: Dr. Ian K. R. McMillan, cardiac department, St. Thomas' Hospital, London.

**Distribution:** (in U.S.) Medical Audio-Visual Institute of the Association of American Medical Colleges, 135 North Wabash Ave., Chicago 1, Ill., Loan; £4; (in G.B.) British Film Institute, 144 Shaftesbury Ave., London W.C.2, England, Loan; Author, Sale: £45.

#### **Nagana—African Trypanosomiasis of Animals Transmitted by Tsetse Flies**

22 min., sd., color, 16 mm., 1947.

After scenes of the countryside in Zululand where nagana is a plague of cattle, the film identifies the three species of trypanosomes responsible for the disease by means of drawings of diagnostic smears. The complete life cycle of the arthropod vector, the tsetse fly, is depicted. Control measures are then shown; e.g., eradication of reservoir hosts, wild game; treatment of sick cattle with antimony compounds; elimination of the shady breeding places of tsetse flies; trapping of these flies; and mass application of DDT dust to the terrain by means of airplanes.

This film is primarily a progress report on the control of bovine trypanosomiasis, and probably will become obsolete in sections as newer methods of control develop. On the other hand, the sequences covering the terrain in which nagana occurs, the species of trypanosomes involved and the biology of the tsetse flies will be of lasting value. The wisdom of destroying wild game in order to eliminate reservoir hosts is to be questioned and the film may be overly optimistic as to the value of the various control measures. The production is logically organized but leans heavily on the narration, since there is a lack of visual con-



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1. Cass, L. J. and Frederik, W. S.: Malt  
Soup Extract as a Bowel Content  
Modifier in Geriatric Constipation.  
*Journal-Lancet*, 73:414 (Oct.) 1953.

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tinuity despite many well photographed scenes. The sequence covering the life history of the tsetse fly is particularly illuminating, and might be extracted from the production for presentation alone as a useful brief instructional film.

Because of the significance of nagana and its relationship to human trypanosomiasis, this film will be of value as introductory or supplementary material in the instruction of students of veterinary medicine, public health, and parasitology.—*D.S.R., with MAVI Panel, 1950.*

**Audience:** Veterinarians, students of veterinary medicine, parasitology, medical entomology and sanitary engineering.

**Production Data:** **Producers:** Film Services, Union Education Department, Union of South Africa; **Scientific Advisors:** Veterinary Research Institute, Onderstepoort.

**Distribution:** **Loans:** (In U.S.A.) Embassy of the Union of South Africa, Washington, D.C.

#### **Disaster Control**

20 min., sd., b&w., 16 mm., 1951.

An industrial board of directors is shown the consequences of an atomic blast upon its plant and workers: destruction, panic, production stoppage. A plan of organized training and preparation begins with selection of a plant defense coordinator who must expand the existing personnel and facilities. A fire fighting organization, a police unit, a medical team (first aid, sanitation and decontamination), a salvage and repair group and air-raid wardens are tied together in an intercommunicating plant organization. The disaster center is

planned, equipped, staffed. In an atomic explosion the types of damage and their sources are analyzed: blast, heat, and radiation. Practice drills prepare for a real assault; when it occurs, the training and preparation produce disciplined action.

This all-cartoon film admirably covers the principal elements of civil defense against atomic bomb attack, with maximum maintenance of production. Although the situation concerns a hypothetical small industrial plant, its content is actually universal in the civil defense sense. The production is skillful, restrained, confidence-evolving in its overall tone. The simple cartoon method is well designed to produce the generalizations needed but without minimizing the gravity of the issues.

For all groups concerned with civil defense training this film can be relied upon to cover the critical essentials of preparation for disaster in a broad and introductory fashion, and emphasizing that fear must be expended in constructive action during an emergency. The film is high in administrative interest, low in clinical emphasis, from the standpoint of medical audiences.—*D.S.R. and G.V.B., with MAVI Panel, January 1954.*

**Audience:** Industrial and other (including professional) groups concerned with civil defense.

**Reference:** "A Report to Industry," *The American Machinist*.

**Production Data:** **Sponsor:** McGraw-Hill Book Co., Inc.; **Producers:** Transfilm Productions; **Technical Adviser:** William H. Stocker Jr.

**Distribution:** McGraw-Hill Book Co., Inc., Text-Film Department, 330 West 42nd St., New York 36, N. Y.; **Sales:** Film libraries and CDA organizations, **Loans.**

## *Film Appraisal*

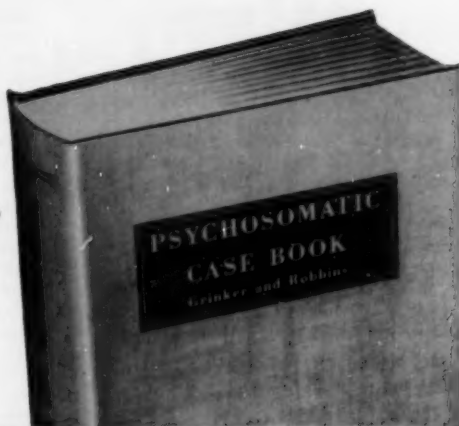
**A**N APPRAISAL is an evaluation of a film prepared from the recorded opinions of informed people working on an agreed procedure for the purpose of enabling a film user to make a preliminary selection from a number of films based on the assessments of experts on the various aspects of the film.—from *Summary Report of Conference on International Standards for Film Cataloging*, p. 11, held at Library of Congress, Washington, D. C., May 11-12, 1953.

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# Book Reviews

## Clinical Management of Behavior Disorders in Children

Harry Bakwin, M.D., and Ruth Morris Bakwin, M.D. W. B. Saunders Co., Philadelphia, 1953. \$10.

The title of this book is so inclusive as to lead some readers to expect a psychiatric text, and this it is not. The work is divided into 12 major sections and 72 concise chapters on specific topics. The discussions of development, psychologic care and the care of the physically handicapped seem especially good to the reviewer. In discussing etiology, however, the authors lean heavily on such factors as inheritance, cerebral dominance, and organic brain disease and damage.

The more obviously psychological factors are presented in deliberately non-psychiatric terms which seem at times too general. The authors appear to disapprove of much psychoanalytic thought, and seem too ready to disprove it. At other times they seem unclear over the question of what is neurotic; e.g., in a discussion of a "pure" state of "maternal overprotection," claiming a hormonal influence for what by description appears to be simply neurosis. They have nothing to say of the role of psychotherapy by psychiatrists, save specifically in schizophrenia. Instead, the reader finds such phrases as: "the child should be encouraged to lead a normal life," or "the parents should assume a calm, unemotional attitude." This may work for those as obviously skillful as the Bakwins, but the reviewer wonders how it might be with others. With these limitations—admittedly dependent upon one's point of view—the book is recommended as profitable for pediatricians, psychiatrists and those in related fields.

Chester C. d'Autremont,  
Massachusetts General Hospital

## Introduction to Electronics for Physiological Workers

I. C. Whitfield. Macmillan & Co., New York, 1953. 231 pp.

The author's stated purpose in writing this book is to fill the gap between elementary textbooks on radio and the

more advanced monographs which treat the application of electronics to biological research. The author makes very clear the fundamental operations of electronic circuits. The book should be worthwhile to a host of research workers who are very often baffled by the complexities of their electronic apparatus.

The author points out that this is not a book which can be picked up with the hope that in an idle hour it might be possible to learn something about electronics. While this book lays a foundation for understanding which is easily within the reach of the average research worker, it will require considerable concentration on his part.

The author does not make the usual mistake of confusing the reader by presenting an elaborate bibliography. He has judiciously selected one or two references in each of the subject areas treated by the book.

R.M.D.

## Global Epidemiology, Volume Three—The Near and Middle East

James Stevens Simmons, M.D.; Tom F. Whayne, M.D.; Gaylord W. Anderson, M.D.; Harold M. Horack, M.D.; and associate author, Ruth Alida Thomas, M.P.H. J. B. Lippincott Co., Philadelphia, 1954. 346 pp. with index. \$12.

This is the third in the series of five volumes designed to cover the epidemiology and sanitation of the various areas of the globe. The first volume dealt with India, the Far East and the Pacific area; the second volume with Africa and the adjacent islands. This one concerns itself with the Near and Middle East.

Section one, the Near East, covers Cyprus, Iraq, Israel, Jordan, Lebanon and Syria. Section two, "Approaches to Eastern Area and Europe," covers Afghanistan, Iran and Turkey. Section three covers the eight countries of the Arabian peninsula. The appendix includes a variety of "Health Hints for the Tropics."

For each of the 17 countries included in these areas the authors provide a systematic description of the geography and climate, the population and socio-eco-

conomic conditions, the environment and sanitation, the health services and medical facilities, the diseases and finally, a summary and bibliography.

This volume, like the other volumes of the series, represents a large amount of research and culling of the literature in many languages. It is not written as a book to be read from cover to cover, but rather as a reference work designed to provide epidemiological information in a systematic form for each country.

It should be of great value to travelers, oil companies, military planners, State Department employees and all persons with special interests in the Near and Middle East.

D.F.S.

#### **Educating the Sub-Normal Child**

Frances Lloyd. Philosophical Library, New York, 1953. 144 pp. with index.

The case for schools for educationally subnormal children and the organization, curriculum and aims of one such school in England are presented. The material is interesting but throughout the book the reader gets the impression that the author's primary purpose may have been to convince him that tax money spent on E.S.N. schools is well spent.

What can be taught to children with IQ's between 50 and 70 or 75 is approached realistically, and methods are suggested for teaching. Examples are given of how reading and arithmetic can be taught so that useful, if rudimentary, skills can be acquired by these children. There is a healthy emphasis on making the school enjoyable as well as educational. Creative expression is encouraged and, whenever possible, integrated with the teaching of school subjects. The book's overall scope is rather informal, and many practical examples are given which should be useful to the teacher who works with educationally sub-normal children.

S. C.

#### **Epilepsy and the Functional Anatomy of the Human Brain**

Wilder Penfield and Herbert Jasper. Little, Brown & Co., Boston, 1954. 844 pp. \$16.

Doctors Penfield and Jasper are well known for their neurological research, and this scholarly book representing some 15 years of collaboration, is the kind of classic which would be expected from these two eminent scientists.

The authors' primary objective was

clinical, and their secondary objective scientific. The clinical aim was to achieve a better understanding of the mechanisms underlying epileptic seizures. This leads naturally to the functional anatomy and physiology of the human brain which is the most interesting part of their work. The book is a basic contribution to our knowledge of epilepsy and functional localization in the brain.

Some additional topics which are covered include: (1) a detailed description of the techniques of electroencephalography, (2) information for the diagnosis and management of the epileptic patient and (3) classifications of epilepsy. The theoretical discussion of the physiological basis of cortical electrical activity is especially stimulating.

R.M.D.

#### **Surgical Pathology, 2nd edition**

Peter A. Herbut, M.D., professor of pathology, Jefferson Medical College, and director of clinical laboratories, Jefferson Medical College Hospital. Lea & Febiger, Philadelphia, 1954. 893 pp. with index. \$14.

Originally compiled to meet the needs of candidates for the specialty boards in the various branches of surgery, the new second edition of Dr. Herbut again answers this requirement. The volume already has proved its value as a student text of surgical pathology and as a reference book for surgeon and pathologist.

At the beginning of each chapter there is a helpful section on the embryology and histology of the region under discussion. An excellent feature of the presentation of each subject is the clinical orientation which achieves the happy mean of being long enough but not too long. The references at the end of each chapter are numerous and well selected; their usefulness to the reader would be enhanced if they were subdivided according to topics. It is gratifying to note that a chapter on the central nervous system has been added, and that mention is made of fungus diseases of the lungs. The photographs of microscopic preparations are uniformly good as are most of the photographs of gross specimens.

It is interesting to compare Herbut's "Surgical Pathology" with Ackerman's new "Surgical Pathology." Ackerman's book is written in a personal manner, and he devotes space to suggestions on how to interpret frozen sections. In other words, he has put his wisdom and experience into the volume. But the book

is somewhat "spotty" in that certain topics are not mentioned.

Herbut's book is written in a less personal manner, with more dependence on the literature. Herbut's wisdom and experience are present, but expressed indirectly, and kept subordinate to the formal arrangement. But perhaps in this

the book achieves its purpose of systematic presentation and complete coverage.

In conclusion, the volume can be highly recommended to serve not only the board candidate, but medical student and specialist as well.

Roger D. Baker, Duke

## Books and Pamphlets Received

*(As space permits, those with the greatest interest  
to our readers will be reviewed)*

### Administrative Medicine

George S. Stevenson, M.D., editor. Sponsored by Josiah Macy Jr. Foundation New York, 1953. \$3.

### Bacteriology for Medical Students and Practitioners

A. D. Gardner, D.M., F.R.C.S., F.R.C.P., regius professor of medicine, Oxford University, Oxford University Press, London, 1953. 264 pp., with index. \$3.

### Connective Tissues

Charles Hingan, M.D., editor. Sponsored by Josiah Macy Jr. Foundation New York, 1953. \$3.75.

### Educating the Sub-Normal Child

Frances Lloyd. Philosophical Library, New York, 1953. 144 pp. with index.

### Experimental Surgery, 3rd edition

J. Markowitz, M. B. E., assoc. professor of physiology, University of Toronto; J. Archibald, D.V.M., M.V. Sc., professor and head of the division of small animal medicine and surgery, Ontario Veterinary College; H. G. Downie, D.V.M., M.S. (Cornell), M.V. Sc., assistant professor of physiology, Ontario Veterinary College. The Williams & Wilkins Co., Baltimore, 1954. \$38 pp. with index.

### A History of the Theories of Aether and Electricity

Sir Edmund Whittaker, F.R.S., Honorary Fellow, Trinity College, Philosophical Li-

brary, Inc., New York, 1954. 397 pp. with index. \$8.75.

### The Jealous Child

Edward Podolsky, M.D. Philosophical Library, New York, 1954. 142 pp. \$3.75.

### Medical Progress, 1954

Morris Fishbein, editor, The Blakiston Co., New York, 1954. 331 pages. \$5.

### Nerve Impulse

Transactions of the Fourth Conference; David Nachmansohn, M.D., editor. The Josiah Macy Jr. Foundation, 1954. 224 pp. \$4.

### The Psychiatric Aide

Alice M. Robinson, R.N., M.S., Director of Nursing Service and Nursing Education, Boston State Hospital. J. B. Lippincott Co., Philadelphia, 1954. 174 pp. plus index. \$3.

### Practical Electrocardiography

Henry J. L. Marriott, M.D., associate professor of medicine, University of Maryland, The Williams & Wilkins Co., Baltimore, 1954. 159 pp. with index.

### Psychosomatic Case Book

Roy H. Grinker, M.D., director of the Institute for Psychosomatic and Psychiatric Research and Training of the Michael Reese Hospital; and Fred P. Robbins, M.D., associate psychiatrist, Michael Reese Hospital. The Blakiston Co., Inc., New York, 1954. 323 pp. with index. \$6.50.



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## Abstracts and Excerpts

**Too Many Doctors?**, "British Medical Journal," No. 4852, January 2, 1954.

During the last six years the annual entry of students to the medical schools of the United Kingdom and Eire has been between 2,500 and 2,700. Registered medical practitioners have increased by about 1,000 a year over the same period. Doctors seeking permanent positions are finding it more difficult than formerly to get the jobs they want.

The General Medical Services Committee of the British Medical Association is recommending an inquiry into this problem. In such an inquiry two hazards are to be avoided. The first is too great a preoccupation with details. Any attempt to lay down precisely how many doctors should fill any particular branch of the profession must be put out of court, for it is impossible to impose on the whole of medicine the sort of staff establishment that suits government services. The expansion of medical knowledge in the past two or three decades has been reflected in a greatly altered distribution of medical men between the various branches of the profession, and such natural flexibility of response must be preserved. The second danger is delay. The numbers of doctors are increasing so rapidly that, apart from the obvious risks of overcrowding the profession itself, doubts must arise whether the country ought to be spending its resources on training so many students—not in some years' time but this year and next.

Cope, Oliver, **The Teaching of Medicine and Surgery As One Discipline**, "The New England Journal of Medicine," Vol. 250, No. 1, January 7, 1954.

The rapid expansion of medical knowledge, the lengthening period of medical education and the current emphasis on specialization both in teaching and in practice demand scrutiny of the concepts on which the present undergraduate medical curriculum is founded. Teachers have met the expansion of knowledge by adding to the length of the curriculum.

Some mechanism must be found to meet these advances other than this

lengthening. One such solution might be the dissolution of departmental barriers. If one is considering dissolving any departmental barrier it would be only logical to deal first with that between the two largest clinical departments: internal medicine and general surgery.

Internal medicine is the parent field of clinical practice. Surgery has been split apart from medicine because of the intricacies of the surgical method of therapy. Two divergent views are held regarding surgery. One holds that the surgeon is a technician who does the bidding of the internist. The other holds the surgeon starts with the same basic attitude and relation to the patient as the internist, from whom he differs only in that he has learned from the surgical mode of therapy. The union with medicine would be good for surgery. It would force the surgeon to be concerned with the functional aspects of the diseases he treats and keep him from being overly concerned with the technical aspects.

A danger to surgery in uniting it in teaching with internal medicine would be that the practice of caring for both medical and surgical patients on the same ward might grow. The surgeon might grow preoccupied with the actual surgical maneuvers and would be tempted to leave the care of the patients to his internist colleague.

Shanks, Carrol M., **Voluntary Health Insurance—An Appraisal and a Look Ahead**, "Missouri Medicine," Vol. 51, No. 2, February 1954.

Among the future problems in the field of voluntary health insurance we must continue to vigorously press and expand sales. We shall have to deal more effectively with the problems of older persons, the persons not presently reached by insurance companies through their group plans or by Blue Cross or Blue Shield. We shall have to deal with the retired person and with the problem of chronic illness and major medical expense.

The medical profession and the insurance companies must have a deeper recognition of our joint obligation to the

public. The patient is a whole man, and he is justified in demanding that he be treated as such. Doctors, hospitals, and insurance agencies all exist as a mechanism through which the public can best achieve its purposes; namely, better health care and a better and more satisfactory method of financing the cost of that care.

Smiley, Dean F. **What Medical Schools Can Do To Improve Medical Writing.** "Mississippi Valley Medical Journal," Vol. 76, No. 1, January 1954.

The average medical student today does not have the ability to express himself clearly and concisely in writing. What are some of the possible causes of the inability of medical students to express themselves well in writing? The first, though perhaps not the most important reason, is insufficient basic training in English composition in the liberal arts college. The second reason is lack of practice in composition and the essay-type of writing in medical college. The third reason is the greatly increased preoccupation of the medical student with textbook reading to the exclusion of reading of the current literature both general and medical.

To correct this deficiency we can stop encouraging students to abbreviate their arts college course to two or three years. We can encourage students to make their arts course a well-balanced whole, not letting science requirements crowd out English, history and literature. We can use some essay-type examinations at all levels, and urge the instructor in the medical school to criticize poor writing and approve good writing wherever he finds it. There is also the possibility of a course on medical writing, although the students who need it most are the least likely to elect it. Improvement in medical writing is

a real responsibility of our medical schools which somehow must be met.

Ebaugh, Franklin G., and Barnes, Robert H. **Psychiatric Education.** "The American Journal of Psychiatry," Vol. 110, No. 7, January 1954.

While 1953 brought no major revamping in medical education, the proponents of "comprehensive medicine" became increasingly vocal and continued to place their convictions into practice. The dean of Harvard Medical School emphasized the tremendous need to reconstruct our educational programs in an attempt to tie together the various specialties into a comprehensive whole.

There has been a demand for psychiatric teaching which goes beyond the strict boundaries of our specialty and an increasing attempt to correlate psychological and social factors with medical illness. Coupled with the increased interest in "comprehensive medicine" has been a broadening of the concept of "preventive medicine."

With the increased interest in psychiatry and appreciation of its applications has come a demand for improvements in undergraduate psychiatric education, both in the subject matter and methods of presentation. More emphasis is being put on small group and individual teaching than the lecture approach. The importance of psychodynamics in the training of residents for psychotherapy is emphasized. Too often, even in graduate training, psychotherapy is treated as a "commonsense" procedure that one just "picks up" in contacts with patients.

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- Clapp, Margaret. **Major Problems in Higher Education.** "The Educational Record," Vol. 35, No. 1, January 1954.  
McLaurin, J. W. **The Present Status of Otolaryngology and Otolaryngologic Teaching.** "The Bulletin of the Tulane University Medical Faculty," Vol. 13, No. 2, February 1954.



# The Personnel Exchange

## Faculty Vacancies

• **INTERNIST:** Board certified or qualified desiring full-time academic career with excellent advancement opportunity. Should be interested primarily in clinical teaching and administration. Write Dr. Harold N. Neu, director of dept. of medicine, Creighton University, Omaha, Neb.

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• **FELLOWSHIP—CHILD PSYCHIATRY:** Candidates must be M.D.'s with basic psychiatric or pediatric training. In addition to the clinical experience, the fellow in training will be encouraged to take certain academic courses which, if desired, can lead to acquisition of either a M.S. or Ph.D. degree. Write to Dr. Reynold A. Jensen, office of the medical director, University of Minnesota, University of Minnesota Hospitals, Minneapolis, Minn.

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• **TEACHING FELLOWSHIP IN ANESTHESIOLOGY:** Available for 1 year to physician eligible for New York State Licensure, with at least 2 years approved residency training. Clinical instruction of medical students in operating room of Albany Hospital major responsibility. Interest in clinical research important but not mandatory. Annual stipend \$6,000. Contact J. Gerard Converse, M.D., Professor of Anesthesiology, Albany Medical College.

• **Physiologist:** Combined department of physiology and pharmacology. Rank and salary dependent upon qualifications. Write Dr. F. E. Kelsey, Chairman, Department of Physiology and Pharmacology, University of South Dakota Medical School, Vermillion, South Dakota.

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• **PHYSIOLOGIST:** Teaching position in a medical school starting in the fall of 1954. Has had five years in pediatrics. Will have had two years in neurophysiological research. Age 28. Address: Anton N. Lethin Jr., dept. of physiology, Yale University School of Medicine, 333 Cedar St., New Haven 11, Conn.

• **Permanent position desired with opportunity for significant research with or without teaching.** Ph.D. and national research council fellow with experience in iron uptake and phosphate metabolism of blood, biochemistry and physics of various radio isotopes, radiation effects, plant physiology, instrumentation and publications. Is adaptable to a variety of research and production problems. B.S. in economics with experience in statistics. Married and 37 years old. Address: A-82.

• **PHYSIOLOGIST:** Pharmacology and biochemistry minors. Male. Considerable experience in good teaching. Publications. Ph.D., member of several scientific societies; interested in full-time academic position. Time arranged when available. Address: A-83.

• **PHYSIOLOGIST:** Ph.D., specialized in endocrinology (undergraduate training in veter-

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Information for these columns should reach the Journal office, 185 N. Wabash Ave., Chicago 1, not later than the 10th of the month preceding publication.

inary medicine). Prefer research position in endocrinology or physiology. Available Jan. 1, 1954. Address: A-84.

• **BIOCHEMIST - HISTOCHEMIST:** Ph.D. Man. Age 36, married, children. Would like permanent teaching-research position in histology, histochemistry, biochemistry. Publications in physiology, histochemistry, biochemistry. Available July 1, 1954. Address: A-85.

• **ANATOMIST:** Man, Ph.D. Several years teaching experience in gross anatomy, histology and embryology in medical and dental schools; also teaching experience in many biological sciences in liberal arts college. Publications. Excellent references. Desires academic position at medical, dental or pharmacy school or liberal arts college where good teaching is considered important. Administrative duties welcome but not necessary. Now employed on medical school staff. Available on short notice. Address: A-86.

• **ZOOLOGIST - PARASITOLOGIST:** Ph.D., Male, age 31, married. Desires opportunity to earn M.D. degree by attending medical school part-time and teaching part-time. Prepared to assist in teaching parasitology, gross anatomy or histology plus several of the basic zoological courses. Five years teaching and research experience. Publications. Member of Sigma Xi and several other scientific societies. Has conducted personal research and directed graduate research in parasitology. Suitable liberal arts college will be considered. Address: A-87.

• **Gynecologist-Obstetrician:** Age 31. Completing University Hospital residency and M.M.Sc. in June. Teaching background. Immediate supervision of residency program. Desires full-time teaching association with opportunity for investigative physiology. Address: A-88.

• **Physiologist:** Ph.D., male, 33 years old. Well-trained in human physiology, biochemistry and anatomy. Seeks a position in a medical or dental school, where emphasis lies with the instruction of students, and research can be conducted at the discretion of the appointee. Address: A-89.

• **Biochemist:** Ph.D. 1950. Age 30, family. Three years graduate teaching assistant. Doctoral thesis on degradation of hemoglobin. Past three years research on relationship of sulfur compounds to metabolism of aromatic hydrocarbons. Experienced in use of radioactive isotopes. Four publications. Medical school teaching experience. Desires teaching position in biological chemistry. Address: A-90.

• **PHARMACOLOGIST:** Ph.D. age 28, married. Presently teaching at medical school. Research experience includes hormones, anti-

convulsants and the use of radioactive isotopes. Seeks position in teaching or research with opportunity for obtaining M.D. degree. Address: A-91.

• **BIOCHEMIST:** Ph.D. desires change. Present position: 25 years medical school professor. Many publications on metabolism and nutrition. Honors, awards, editorial boards. Will consider research, teaching, administration, clinical chemistry, editorial work. Address: A-92.

• **ANATOMIST:** Age 47; woman, M.S. and several years additional training. 12 years teaching experience in all branches of anatomy, especially gross and neuroanatomy. Publications, references; available immediately. Address: A-93.

• **INTERNIST-PHYSIOLOGIST:** M.D., Ph.D. Age 31. Board eligible with interest in gastroenterology. 2 years residency in internal medicine, 1 year residency in G. I. and 2 years research and teaching physiology. Desires position with research facilities in basic science and clinical fields. Address: A-94.

• **BIOCHEMIST:** Ph.D. 1943. Extensive research experience since 1941 in enzymes, physical chemistry of proteins, plasma, microbiology and chromatography. 22 publications. 3 years teaching of graduate students, 4 years of medical students as assistant professor. Desires permanent position with opportunity for research and teaching or administration in northern section of country. Available after August 1954. Address: A-95.

• **BACTERIOLOGIST:** Ph.D. Man. Age 30, married, veteran. Teaching experience in medical school. Publications and references. Sigma Xi. Would like teaching-research position in medical bacteriology, virology, or immunology. Prefer location in west or southwest section of country but would consider other location. Available July, 1954. Address: A-96.

• **PHARMACOLOGIST-PHYSIOLOGIST:** Male, Ph.D. Broad teaching experience at both undergraduate and graduate levels; has organized course in medical pharmacology. Active in research, including clinical applications. Publications. Member of professional societies. Available on short notice. Address: A-97.

• **PHYSIOLOGIST:** M.D., M.A. chemistry, diplomate. 27 months of residencies. 5 years of practice. 3 years of research and teaching. Research papers in pulmonary physiology and biophysics. Desires teaching position with opportunity for research. Address: A-98.

• **SURGEON:** M.D., L.R.C.S. Foreign-born; naturalized. Experience includes 2 years post-graduate work in surgery and 6 years approved residency. Desires teaching-research

position in medical school. Available July 1954. Address: A-99.

• **PHARMACOLOGIST:** Ph.D., associate professor in large medical school, fully qualified for departmental administration, desires change to responsible position. 14 years medical teaching, including organization and presentation of all phases of pharmacology courses. Active in research and in direction of graduate activities. Member of pertinent societies. Available Sept. 1954. Address: A-100.

• **BACTERIOLOGIST:** Ph.D., desires teaching and/or research position. Experience in teaching, research and consulting. Successful preparation of nurses, pharmacists and pre-medical students. At present, assistant professor. Available on short notice. Address: A-101.

• **INSTRUCTOR and/or RESEARCH ASSISTANT:** M.D. Japanese; American born, Age, 40. Reads, writes and speaks English fluently. Experience: 1 year residency in otorhinolaryngology; and 3 years residency in surgery at the Kyoto Prefectural Hosp. 3 years as medical lab technician at the U. S. Army Hosp. in Kyoto, Japan. 4 years as chief of E.E.N.T. department, Kushida Hosp., Osaka, Japan. Engaged in private practice since 1952. Address: A-102.

• **PHYSIOLOGIST:** M.D., associate professor, man, age 35, married. Swiss. Research for 7 years in respiration and circulation in Switzerland, U. S., England and Germany. 7 years teaching experience. Background in math, physics and chemistry. Prefers position in research or teaching for about 3 years. Publications and references. Available in autumn 1954. Address: A-103.

• **MICROBIOLOGIST:** Desires graduate research fellowship or assistantship permitting study toward Ph.D. degree. A.B., M.S. in bacteriology plus 2 years of graduate study toward Ph.D. completed. Research experience in therapy of parasitic infections and bacterial

physiology. Numerous publications and member of Sigma Xi. Presently assistant professor of microbiology in small college. Available in July 1954. Address: A-104.

• **BIOCHEMIST-PHYSIOLOGIST:** Ph.D., age 27, 3 years teaching experience, research on cellular and blood thymo-nucleic acids, relationship to stress and tumor activity. Interested in working toward M.D. degree. Address: A-105.

• **ANATOMIST:** Ph.D., 33 years old. Has taught in recognized medical school. At present executive position in pharmaceutical industry. Wishes to return to academic profession. Has taught all fields of anatomy; interested in research. References; publications. Address: A-106.

• **PHARMACOLOGIST:** Male, age 33. Ph.D. Minors: biochemistry and physiology. 1 year graduate teaching and research assistant. Teaching and research position with medical, dental or pharmacy school pharmacology department desired. Available immediately. Address: A-107.

• **PHARMACOLOGIST:** M.D., Ph.D., married. 5 years teaching experience, active in research; publications. Desires position teaching with research or research only. Address: A-108.

• **INTERNIST:** Man. Age 42. M.D., Ph.D., F.A.C.P. More than 15 years experience in teaching, research and top-level administrative responsibility. Would like permanent position involving some teaching and/or clinical investigation. Address: A-109.

• **ANATOMIST:** Ph.D. in medical science, major in anatomy, 1954. Married. Age 31. Would like permanent teaching-research position at medical school or research institute. Extensive background in preclinical courses including pathology. 4 years teaching experience as fellow in histology and embryology in medical school. Keen interest in histochemistry and endocrinology. References. Available June 1, 1954. Address: A-110.

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